



# City of Houston

Annise D. Parker  
City Controller

## Houston Emergency Center

Performance Review

Report No. 05-27  
June 2005



OFFICE OF THE CITY CONTROLLER  
CITY OF HOUSTON  
TEXAS

ANNISE D. PARKER

July 5, 2005

The Honorable Bill White, Mayor  
City of Houston, Texas

SUBJECT: Houston Emergency Center-Performance Review  
Report No. 05-27

Dear Mayor White:

I am pleased to submit to you this independent Performance Review of the Houston Emergency Center (HEC) operational activities. Jefferson Wells International (Jefferson Wells), in coordination with the City Controller's Office and HEC personnel, identified commendations related to emergency response delivery services, as well as opportunities for improvement with potential cost savings totaling approximately \$6.8 million annually.

The primary objectives of the engagement included reviewing operational practices, policies, and procedures to provide recommendations for improving the coordination, efficiency and effectiveness of HEC functions; reviewing management's practices to help ensure available resources are coordinated and utilized efficiently and effectively; and analyzing costs and providing recommendations for cost savings. Jefferson Wells also conducted an employee survey and held twenty voluntary focus group sessions with employees to assess operational functions and performance.

The report identified recommendations for improvement in significant areas such as Organizational Structure; Staffing Methods; Employee Morale and Environment; Operational Management; and Facility Security and Disaster Recovery. Draft copies of the matters contained in the report were provided to HEC and the Mayor's Office of Public Safety and Homeland Security (Public Safety). The views of the responsible officials as to actions being taken are appended to the report as Exhibit A.

We enjoyed working with the HEC employees and the Public Safety officials and appreciate their complete cooperation with Jefferson Wells during this review.

Respectfully submitted,

Annise D. Parker  
City Controller

xc: **City Council Members**  
**Anthony Hall, Chief Administrative Officer**  
**Michael Moore, Chief of Staff, Mayor's Office**  
**Dennis Storemski, Director, Mayor's Office Public Safety and Homeland Security Division**  
**David Cutler, Assistant Chief, Houston Police Department**  
**Rick Flanagan, Assistant Fire Chief, Houston Fire Department**  
**Sharon Counterman, Director, Houston Emergency Center**  
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June 27, 2005

Controller Annise D. Parker  
City Controller  
City of Houston  
901 Bagby, 8<sup>th</sup> Floor  
Houston, Texas 77002

Dear Controller Parker:

We have completed our review of the Houston Emergency Center as outlined in our engagement letter dated February 17, 2005, under Contract No. 56545.

Our observations and recommendations noted during the performance of the review are presented in this report. Our procedures, which accomplished the project objectives, were performed through May 23, 2005 and have not been updated since that date. Our observations included in this report are the only matters that came to our attention, based on the procedures performed.

All data used during this review was obtained from representatives of the Houston Emergency Center. Our work does not constitute an audit conducted in accordance with generally accepted auditing standards, an examination of internal controls or other attestation or review services in accordance with standards established by the American Institute of Certified Public Accountants (AICPA). Accordingly, we do not express an opinion or any other form of assurance on the reporting or compliance of the Houston Emergency Center.

Jefferson Wells is pleased to have assisted the City Controller, and we appreciate the cooperation received during this engagement from the Houston Emergency Center, as well as your office.

This report is intended solely for the information and use of the City, the Houston Emergency Center and the City Controller's Office, and is not intended to be used for any other purpose.

A handwritten signature in blue ink that reads "Laurie A. Robinson".

Laurie A. Robinson  
Director, Internal Controls

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## **Executive Summary**

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### **Mission**

The Houston Emergency Center (HEC) provides citizens of Houston with the most efficient, accurate and professional service when processing their life-threatening calls.

### **Business Objectives**

- Coordinate with the Office of Emergency Management to protect life and property by operating the public safety communications system.
- Coordinate and manage emergency situations.
- Provide a reliable two-way radio communication system that supports the City of Houston Police, Fire/EMS, and Emergency Management agencies for field deployment.
- Improve delivery of public safety services.

Prior to September 2003, Houston had three emergency communications centers for 9-1-1: Neutral Public Safety Answering Point, Police Department Emergency Communications Division, and Fire Department Emergency Communications Operations. Each agency had separate answering centers, computer networks, and technical support.

Beginning in September 2003, these interrelated, emergency response groups were combined functionally as a department named HEC and physically placed within a single emergency response center and on a common call floor to consolidate all call and dispatch efforts (hereinafter referred to as “the Center”). These groups are the following:

- Houston Emergency Center (previously considered the Neutral Public Safety Answering Point, this group is composed of primarily the former management and personnel from 9-1-1 Call Operations, supplemented by former civilian HPD call takers) – “HEC”
- Houston Police Department (previously the Police Department Emergency Communications Division, this group is composed of classified management and supervisory personnel and civilian call dispatchers) – “HPD”
- Houston Fire Department (previously the Fire Department Emergency Communications Operations, this group is composed of all classified personnel) – “HFD”

The Center was established to improve the delivery of Public Safety services to citizens who live, work, and visit Houston by providing a single unified facility in which calls for emergency services within Houston can be received and dispatched to emergency first responders. Other capabilities that allow the Center to provide reliable communications are its link to two-way radio communication systems that support the City of Houston

## Executive Summary

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Police, Fire/EMS, and Emergency Management agencies, so that dispatchers can communicate directly with personnel in the field.

Approximately 9,000 emergency calls per day are processed at the Center. The volume of emergency calls can easily double during times of inclement weather or special city social/sporting events.

Our review of related operational data indicates that overall, during 2004, the average total response time citywide has improved for Fire/EMS 9-1-1 calls, but deteriorated for Police 9-1-1 calls, primarily driven in each case by the availability and travel time of the responding units in the field.

- The first basic life support respondent to an EMS emergency call arrived at the scene within 10.7 minutes on average of the 9-1-1 call being placed;
- The first respondent to a Fire emergency call arrived at the scene within 7.2 minutes on average of the 9-1-1 call being placed;
- The first respondent Police unit arrived on the scene of a potentially life threatening (Priority 1) event within 7.9 minutes of the 9-1-1 call being placed.

End to end response times to individual situations vary by the time of day, location, and type of event. Although the call processing time within the Center is a critical element, the most significant determinant of overall response time is usually the responding unit's travel time, which can represent from 27% to 75% of the average total end-to-end response time.

HEC provides five primary functions:

<b>Function</b>	<b>Responsibilities</b>
<i>9-1-1 call taking</i>	Initial <i>9-1-1 call taking</i> and routing to either Fire/EMS or Police, performed by civilian 9-1-1 Telecommunicators under HEC management.
<i>Fire/EMS call processing</i>	Subsequent <i>Fire/EMS call processing</i> , performed for the preceding several years by civilian Fire/EMS Senior Telecommunicators (ST's) under the same HEC management.
<i>Police call processing</i>	Subsequent <i>Police call processing</i> , performed by civilian Police Telecommunicators (PT), previously civilian HPD employees, who were transferred over to HEC.
<i>Police Dispatch</i>	<i>Police Dispatch</i> , performed by Senior Police Telecommunicators (SPT), who are civilian employees of HPD. Briefly, from approximately September 2003 through April 2004, these SPT's were transferred to HEC as HEC employees, consistent with their former PT colleagues, but were then transferred back to HPD's payroll and supervision by classified police officers.
<i>Fire/EMS Dispatch</i>	<i>Fire/EMS Dispatch</i> , previously and subsequently performed solely by classified HFD employees as a direct career path within HFD.

## **Executive Summary**

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### **Project Scope:**

Jefferson Wells was retained to perform an independent review of the Houston Emergency Center focused specifically on the Center's operational activities. Our primary objectives included:

- Reviewing operational practices, policies and procedures currently in place to provide recommendations for improving the coordination, efficiency and effectiveness of Center functions.
- Understanding the Center's structure and management practices to help ensure all available resources are coordinated and used efficiently and effectively.
- Reviewing internal controls for the performance of management, staff and operational processes.
- Analyzing costs and providing recommendations for cost savings, if any.
- Obtaining feedback on the adequacy and efficiency of employee training programs.
- Performing employee surveys and measuring employee morale within the Center.

### **Overall**

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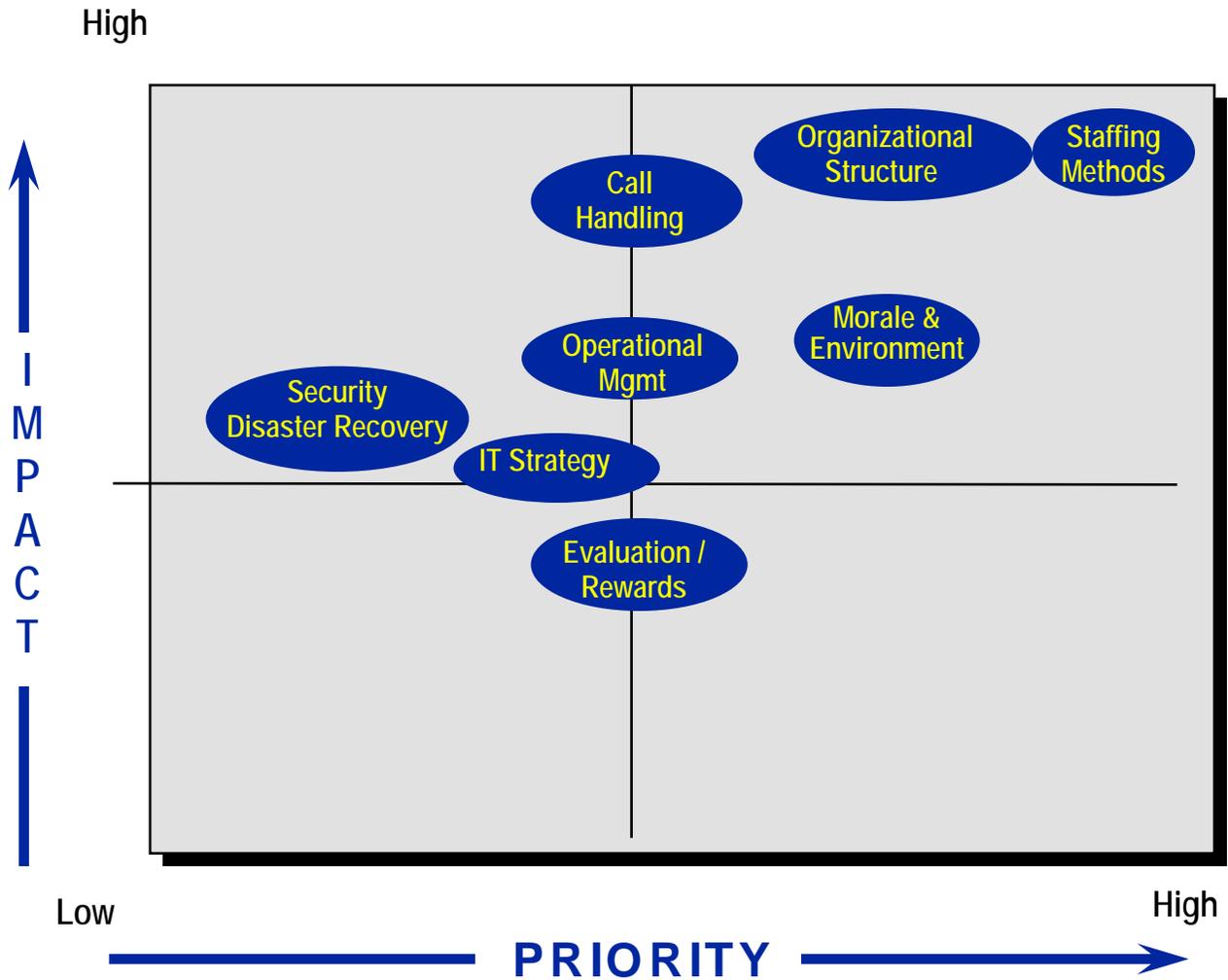
The significant areas identified during our review fall into the following primary categories:

- Organizational Structure
- Staffing Methods
- Employee Morale and Environment
- Employee Evaluation, Rewards and Retribution
- Analysis of Call Handling Activities and Staffing Levels
- Operational Management
- IT Strategy
- Facility Security and Disaster Recovery

The text of the report provides detailed findings of issues within the categories stated above and a summary of related recommendations for improvement. In addition, each section includes a discussion that provides the reader with an overview of current Center processes and historical insight concerning the issues identified. We have also provided a section for Alternative Organizational Scenarios for the Center based on our findings and a full Recommendation section at the end of the report.

The following chart illustrates the relative impact on overall Center operations of each identified Improvement Opportunity category and the relative priority in which these should be addressed. Certain individual issues and recommended improvements may represent a greater or lesser overall impact and priority than their category as a whole.

## Improvement Opportunity Categories



Organizational Structure – We found the current organizational structure to be ineffective and not operating at an optimal level due to the current structure of multiple organizations and management teams, a lack of consistent and coordinated policies and procedures, and a failure to implement the Center consolidation plan as originally intended. We recommend that the findings under the organizational structure section be reviewed within the next 30 – 60 days, and should be one of the first projects initiated.

## Executive Summary

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Staffing Methods - We found that current staffing methods, including mandatory overtime and “drafting”, are a primary factor in the increased rate of absenteeism and contribute to the risk that insufficient personnel may be available in the near future to staff all the critical emergency call response positions on some shifts. In turn, the increasing rate of absenteeism necessitates remaining employees to work even more overtime. To mitigate this, we recommend that within the next 30- 60 days, the Center begin a proactive recruitment program to more fully staff the civilian Telecommunicator roster. We further recommend that the Center and the City of Houston as a whole, undertake a cost analysis of the current usage of the Family Medical Leave Act (“FMLA”) benefit to include a review and update of the current City of Houston and Departmental policy and processes concerning the use of this employee benefit.

Employee Morale and Environment – We found pervasively low employee morale at the Center as evidenced by the employee survey results; this issue is exacerbated by an adversarial environment. We have provided several recommendations for related improvements, some of which could be implemented within the next 30-60 days.

Employee Evaluation, Rewards and Retribution – We found the process for employee evaluation to be ineffective and employee recognition to be virtually nonexistent. Therefore, we recommend the Center improve its current employee evaluation process and productivity measures, and initiate a program to recognize and reward employees who have excelled in performance.

Analysis of Call Handling Activities and Staffing Levels – We found that current call handling activities and staffing levels provide several opportunities to improve the effectiveness and efficiency of the Center’s overall ability to deliver the appropriate emergency response to each citizen’s call. Our recommendations include, but are not limited to, increasing Spanish speaking telecommunicators to reduce reliance on costly outside language translation services, relocating the City’s Teleserve function to the Center, and other call processing cross-training opportunities.

Operational Management – We found that operational management lacks consistency and responsiveness to employees, and recommend in the short-term that the Center develop one set of common standardized policies for all civilian and classified personnel that are applied and enforced consistently throughout the Center.

IT Strategy – We found there to be an inadequate level of after-hours emergency IT support and a lack of unified IT management direction. We recommend that the City establish an onsite 24 x 7 Help Desk. In the short-term, the City should also evaluate the cost benefit of maintaining City or vendor-owned inventory of essential onsite spare parts to reduce downtime.

Facility Security and Disaster Recovery – We found potential gaps in overall security measures, which may expose the Center to significant adverse risks, and we recommend that the Center prepare a formal business disruption and continuity plan in the event the Center becomes disabled for any considerable period of time.

## Executive Summary

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### Employee Feedback

Integral to this review we conducted a confidential and anonymous employee survey to enable 100% of the employee population (397 identified employees, including HEC management and both HPD and HFD classified and management personnel) to provide feedback. The surveys were distributed to ten individual survey groups. The overall response rate of 48% is well above the average response rate of a comparative 25% to 30% as reported by the independent survey company.

According to the survey company, a score of 3.00 is the point of neutrality for the survey. In our experience and that of the survey company, a mean score of 2.63, below the mean of 3.00, should be an immediate concern for the Center. Of particular interest is the fact that the lowest score provided for an individual panel of questions by the HEC Administration survey group of 3.73 is still higher than the highest score (3.68) for any individual panel of questions provided by any other group surveyed within the Center.

Composite Panel	Aggregate (n = 189)	Rank
Personal Job Satisfaction	2.47	2
Compliance with Laws and Regulations	2.37	1
Quality of Services	2.71	5
Employee Communications	2.57	4
Management Practices	2.52	3
Human Resources Practices	2.77	6
Financial Management	3.11	7
<b>Overall Mean</b>	<b>2.63</b>	
<b>Return Rate</b>	<b>48%</b>	

 = Strength  = Neutral  = Needs Improvement

### Key Employee Feedback Observations:

- Employees are still in the transitional stage of a change in the system of awarding shifts from a process based strictly on seniority to a process that also includes performance (EPE) scores and prior year attendance. Employee related complaints include that attendance has a multiple effect on the shift bidding process as it is counted both on its own and again as part of the employee performance evaluation (EPE) score.
- Employees feel that the current Employee Relations liaison function does not provide an effective avenue for them to discuss employment related issues.
- Employees do not feel that open two-way communication takes place both between management and employees and between the various functions within the Center.
- IT employees feel that they are not provided with sufficient tools and training necessary to perform their functions in the most efficient and effective manner.

## **Executive Summary**

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### **Summary Recommendations**

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Our recommendations are discussed in greater detail within this report. The following comprise key recommendations to improve the coordination, efficiency and effectiveness of Center functions, raise overall morale, and provide several opportunities for potential cost savings. We believe that the Center has the potential through the adoption of these recommended practices to raise the level of its operations to that of a “best-in-class” organization and potentially realize \$6.7 million in cost savings.

- The most immediate issue is the existence of three separate organizations with unique cultures and management styles, and with no single centralized day-to-day authority over all emergency response services at the Center. We recommend that the City implement a single unified organizational structure with authority over the Center, consistent with that outlined in Scenario IV – Unified Structure. This should include a common set of policies and procedures to be followed by all individuals at the Center and to be applied consistently and equitably to all parties at the Center.
- Regardless of the future organizational structure that the City may elect to adopt, the City and the respective HEC, HFD and HPD organizations need to collectively address the significant morale issues pervasive throughout all groups at the Center.
- The City and the respective HEC and HPD management should start an immediate, proactive recruitment program and campaign to staff the civilian Telecommunicator rosters, which are operating at sub-optimal levels. The resulting high incidence of forced overtime is considered one of the root causes of the low morale. The shortage of available staff, exacerbated by resulting high levels of enforced overtime and associated absenteeism, and a frequently confrontational work environment, may place at risk the delivery quality and reliability of critical emergency response services. This possibility is most evident in the Police Dispatch function, which is presently experiencing an increasingly acute and potentially mission critical shortage of available personnel.

These specific high level issues and recommendations are discussed in more detail in the main body and related recommendations sections, which follow. **Exhibit 1** to the Executive Summary provides a summary of various potential cost savings associated with the recommendations identified in our report.

We thank the Mayor’s Office of Public Safety and Homeland Security Division, Houston Emergency Center, Houston Police Department, Houston Fire Department, Office of the City Controller, City Human Resources Department, Employee Assistance Program personnel, City Legal staff, Chicago Office of Emergency Management and Communications, and all employees at the Center for the support and welcome extended to the Jefferson Wells team during this review. We appreciate the opportunity to have been of service to the City of Houston.

### Summary of Potential Cost Savings Associated with the Recommendations

#	Page	Description	Potential Annual Savings
1	page 7, page 82, page 88	Organizational Structure Scenario IV - annual payroll cost savings - Appendix F-1	\$ 1,817,386
2	page 17, page 89	HPD management's proposal for three 12-hour shifts and a single 6 hour shift per week	\$ 489,000
3	page 18	Fully staff call processing functions to reduce overtime pay premium could aggregate \$1 million per year:	
3.1	page 95	- Fully staff HEC 9-1-1 Telecommunicator, Police Telecommunicator, and Fire/EMS Senior Telecommunicator functions to avoid overtime premium - Appendix I-1	\$ 266,000
3.2	page 95	- Reduction of sick time	\$ 67,000
3.3	page 96	- Fully staff call processing functions to reduce overtime pay premium - Police Dispatchers Appendix I-4	\$ 336,728
3.4	page 96	- Fully staff call processing functions to reduce overtime pay premium - HFD Classified Fire/EMS Dispatch Appendix I-5	\$ 347,252
4	page 46, page 89	Relocation of HPD Teleserve to the Center - Appendix K-1	\$ 416,000
5	page 46, page 98	Potential Savings from Secondary Coding of ST's to Handle Overflow PT Calls - Appendix D-17 Savings of 1 ST per shift	\$ 202,800
5.1	page 46, page 98	Potential Savings from Secondary Coding of ST's to Handle Overflow PT Calls - Appendix D-17 Savings of 2nd ST per shift	\$ 202,800
6	page 47, page 100	Establish an automated IVR to handle 10-digit Police calls assuming all callers with non-informational Police needs select 9-1-1 option - Appendix D-18	\$ 1,044,342
6.1	page 47, page 100	Establish an automated IVR to handle 10-digit Police calls assuming only calls consistent with Police Priority Codes 1-3 are directed to 9-1-1 PT (\$2,061,584 less \$1,044,342 above) - Appendix D-18	\$ 1,017,242
7	page 47, page 100	Establish an automated IVR to handle 10-digit Fire/EMS calls Appendix D-18	\$ 202,137
8	page 47, page 101	Increase the number of bi-lingual Spanish speaking Telecommunicators and Senior Telecommunicators to reduce use of language line - Appendix L-1	\$ 375,000
			<u>\$ 6,783,687</u>

## **Background**

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The mission of the Houston Emergency Center is to provide the citizens of Houston with the most efficient, accurate and professional service when processing their life-threatening calls. The City of Houston's Houston Emergency Center, in coordination with the Office of Emergency Management, protects life and property by operating the public safety communications system and by coordinating and managing emergency situations.

The City's webpage notes that "prior to September 2003, Houston had three emergency communications centers for 9-1-1: Neutral Public Safety Answering Point, Police Department Emergency Communications Division, and Fire Department Emergency Communications Operations. Each agency had separate answering centers, computer networks, and technical support. The development of the state-of-the-art Houston Emergency Center (HEC) consolidates all of these efforts.

HEC was established to improve the delivery of Public Safety services to citizens who live, work, and visit Houston by providing a facility in which calls for emergency services within Houston can be received and dispatched to emergency first responders. Other capabilities that allow HEC to have reliable communication is its link to two-way radio communication systems that support the City of Houston Police, Fire/EMS, and Emergency Management agencies so that dispatchers can communicate with personnel in the field.

Approximately 9,000 emergency calls per day are processed at HEC. The volume of emergency calls can easily double during times of inclement weather or special City social/sporting events (e.g. Super Bowl XXXVIII (January 2004), Major League Baseball All-Star Game (July 2004)."

Beginning in September 2003, the primary five call handling functions performed by the three previously separately located, but interrelated, emergency response groups were combined within a single call center and on a common call floor. These groups consist of the following:

- Houston Emergency Center (previously the Neutral Public Safety Answering Point, this group is composed of primarily the former management and personnel from 9-1-1 Call Operations, supplemented by former civilian HPD call-takers) – "HEC"
- Houston Police Department (previously the Police Department Emergency Communications Division, this group is composed of classified personnel and supervisory personnel and civilian call dispatchers) – "HPD"
- Houston Fire Department (previously the Fire Department Emergency Communications Operations, this group is composed of all classified personnel) – "HFD"

The term and acronym HEC is confusingly ambiguous since it is used to refer both to a specific segment of civilian call-takers, their administration and management, and also to the Center as a whole.

## **Background**

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To differentiate between the two, we have used the following terminology:

- “HEC” – to refer to the call taking functions and personnel up to and including the Deputy Director of the Houston Emergency Center
- Emergency Response Center – or “the Center” – to refer to the consolidated emergency response functions as a whole and as a single physical infrastructure

The five primary functions consolidated within the Center are:

- Initial 9-1-1 call taking and routing to either Fire/EMS or Police, performed by civilian 9-1-1 Telecommunicators under their existing (now HEC) management.
- Subsequent Police call taking, performed by civilian Police Telecommunicators (PT), previously civilian HPD employees, who were transferred over to HEC.
- Subsequent Fire/EMS call taking, performed for several years by civilian Fire/EMS Senior 9-1-1 Telecommunicators (ST) under the same 9-1-1 management.
- Police Dispatch, previously and currently performed by Senior Police Telecommunicators, which are civilian employees of HPD. Briefly, from around September 2003 through April 2004, these Senior Police Telecommunicators were transferred to HEC as HEC employees, consistent with their former Police Telecommunicator colleagues, but were then transferred back to HPD’s payroll and to supervision by classified police officers.
- Fire/EMS Dispatch, previously and currently performed solely by classified HFD employees.

The creation of the Center has precipitated a number of challenges and performance issues. Our review of related operational data indicates that overall, citywide during 2004, the average total response time has improved for Fire/EMS 9-1-1 calls but deteriorated for Police 9-1-1 calls, primarily driven by the availability and travel time of the responding units in the field.

- The first basic life support respondent to an EMS emergency call arrived at the scene within 10.7 minutes on average of the 9-1-1 call being placed;
- The first respondent to a Fire emergency call arrived at the scene within 7.2 minutes on average of the 9-1-1 call being placed;
- The first respondent Police unit arrived on the scene of a potentially life threatening (Priority 1) event within 7.9 minutes of the 9-1-1 call being placed.

See **Appendix E-1** for further detail.

## **Background**

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End-to-end response times to individual situations vary by the time of day, location, and type of event. Although the call processing time within the Center is a critical element, the single largest determinant of overall response time is usually the responding unit's travel time, which can represent from 27% to 75% of the average total end-to-end response time. (**Appendix E-1 to E-3**)

The reliability of the Center's underlying IT systems is a critical component affecting the speed of emergency response. Contrary to occasional public perception, the Center has also maintained a 99.8% uptime on its systems, very close to its Fiscal 2005 goal of 99.9% availability of all systems. The respective organizations have a manual work around which is implemented during any downtime. On one such occasion, we observed that although these manual procedures increased call processing time, there did not appear to be a significant adverse impact on overall service delivery and response.

## **Scope, Objectives and Activities**

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### **Scope and Objectives**

Jefferson Wells was retained to perform an independent review of the Houston Emergency Center by examining operational areas. Our primary objectives included the following:

- Review operational practices, policies and procedures currently in place to provide recommendations for improving the coordination, efficiency and effectiveness of Center functions.
- Understanding the Center's structure and management practices to help ensure all available resources are coordinated and used efficiently and effectively.
- Review internal controls for the performance of management, staff and operational processes.
- Analyze costs and provide recommendations for cost savings, if any.
- Obtain feedback on the adequacy and efficiency of employee training programs.
- Perform employee surveys and review employee morale within the Center.

### **Activities**

In accomplishing the above, we performed the following activities:

- Obtained and analyzed data from HEC, HPD, and HFD including operational policies and procedures, organizational charts, prior performance assessments, call, overtime, sick and Family Medical Leave Act (FMLA) statistics to identify gaps and opportunities for improvement.
- Scheduled and conducted 20 facilitated focus group sessions to review operational functions and performance with representatives from the following groups:
  - 911 Telecommunicators
  - Police Telecommunicators
  - Senior Telecommunicators Fire/EMS
  - HFD Fire Dispatchers
  - Police Dispatchers
  - 911/Police/Fire/EMS Supervisors
  - Administrative Support Staff
  - HPD Lieutenants and Sergeants
  - HFD Chiefs
  - IT Personnel

Of 166 employees who signed up to participate, 112 attended (67% attendance rate). See **Appendix A-1** for Matrix of Key Issues by Functional Groups.

## **Scope, Objectives and Activities**

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- Conducted 15 interviews with HEC, HPD and HFD management and related personnel to review operational functions and performance.
- Reviewed key policies and procedures with City of Houston Human Resource personnel concerning certain Federal laws and Department of Labor guidelines.
- Reviewed organizational structure and reviewed “span-of-control” for each functional and cross-functional area.
- Reviewed current internal controls and internal control processes.
- Reviewed hiring, employee training procedures, termination and exit interview process with key management staff.
- Predominantly through roll-calls or mail, distributed 397 employee surveys for employees to review operational environment and morale, of which 189 were received (48% return rate). **(Appendix B-1)**
- Performed process “shadowing” with call-center and dispatch employees.
- Performed a ride-along with an HPD officer to gain an understanding of the receiving end of dispatch instructions.

## **Commendations**

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- Despite staffing shortages in several key areas and related work stress, the combined Center call processing personnel and their classified field service associates have maintained generally consistent emergency response delivery times prior and subsequent to the creation of the Center:
  - Citywide, during 2004, a first respondent to a Fire emergency call arrived at the scene within 7.2 minutes on average of the 9-1-1 call being placed; **(Appendix E-1)**
  - A respondent to an EMS call capable of administering basic life support services arrived at the scene within 10.7 minutes of the 9-1-1 call being placed; **(Appendix E-1)**
  - A first respondent Police unit arrived on the scene of a potentially life threatening (coded Priority 1) event within 7.9 minutes of the 9-1-1 call being placed. **(Appendix E-1)**
- Contrary to occasional public perceptions, the Center has maintained a 99.8% systems uptime, close to its Fiscal 2005 goal of 99.9% availability of all systems. (Note: Mitre, independent consultants engaged by the Center to perform a related review, recommended that the Center adopt a goal of 99.99% uptime).
- During a recent Computer Aided Dispatch (CAD) system outage, we witnessed Fire/EMS and Police calls being handled and dispatched manually with only minimal disruption to service delivery.
- There has been a transition from a solely seniority based shift selection methodology to one that reflects and rewards positive individual performance. Over time, this should raise the bar for the quality of the customer service delivered by employees at the Center.

## Improvement Opportunities

## **Section A: Organizational Structure**

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### **Section A: Organizational Structure**

#### **Improvement Opportunity**

The most immediate issue is the existence of three separate organizations, with unique cultures and management styles, and no single centralized day-to-day authority over all emergency response services at the Center.

#### **Summary Recommendations:**

Below is a summary of recommendations for this section of the report. Please see the “Recommendations” section of this report for a more detailed recommendations discussion.

- We recommend that the City implement a single unified organizational structure for the Center, consistent with that outlined later in Scenario IV – Unified Structure. Although the primary objective and outcome of this proposal is the delivery of optimal response services to the local citizenry, this recommendation is estimated to generate \$1.8 million in initial annual payroll cost savings for the City.
- The City should establish, clearly communicate and adhere to a consistent long-term plan for the Center’s role in the provision of citywide emergency response services. One of the most frequent observations from groups at the Center is a desire for a final definitive decision to be made and implemented on the potential civilianization (or not) of all call center functions.
- Although we recommend that the City pursue a different scenario, should the City elect to maintain the current organizational structure, as identified per Scenario 1, we recommend that City management consider a separation and segregation of the two major functions currently performed by HEC:
  - Management of the initial 9-1-1 Call receipt and information gathering; and
  - Administration of various common Center facilities and support services.

The City may wish to have the present City Building Services Department personnel assume all the facility administration responsibilities. This should help alleviate one of the perceived root causes of the current friction.

- We recommend that the Houston Emergency Center commission a committee to study and interview personnel from the Chicago Office of Emergency Management and Communications (OEMC) and develop a case study for the areas where opportunities for improvement are noted. The Chicago OEMC’s 10 years of historical perspective on consolidation lessons learned should afford the Houston Emergency Center valuable insights and comparative benchmarking information.

## **Section A: Organizational Structure**

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### **Discussion:**

The creation of the Center combined three different groups with their own distinct cultures and traditions within a single facility: HEC, HFD and HPD. Each has its own separate chain of command:

- The HEC constituents report directly to the Director of HEC, who reports to the City of Houston's Director of Public Safety.
- The HPD constituents report directly to the on-site Captain, who reports to an Assistant Chief.
- The HFD constituents report directly to the on-site Chief, who reports to an Assistant Chief.

The HEC Director is considered a peer of the HFD Chief and the HPD Chief; this triumvirate collectively determines the overall coordination of their respective group's activities. The HEC Director has no authority over the top on-site classified HFD and HPD management. We understand that Texas state law precludes any civilian from commanding a classified employee.

There are essentially five primary call processing function groups within the Center:

- 9-1-1 Telecommunicators
- Police Telecommunicators
- Fire/EMS Senior Telecommunicators
- Police Dispatchers (Senior Police Telecommunicators)
- Fire/EMS Dispatchers

The joint Fire/EMS functions perform similar but discreet activities for Fire and EMS calls.

### **HEC – 9-1-1 & Police Telecommunicator Functions**

Each group performs a different but critical function; a 9-1-1 Telecommunicator receives the initial call from the public and routes the call to either a Fire/EMS or a Police Telecommunicator for subsequent processing. A critical aspect of the 9-1-1 Telecommunicator function is to ensure that someone answers every emergency (9-1-1) call within seconds of it being placed, determines the optimal service organization and

## **Section A: Organizational Structure**

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correctly routes the call. The critical elements of the Police Telecommunicator function is to ensure that the requisite information is captured accurately, completely, and in the most efficient manner. This is essential not only to promptly dispatch the appropriate emergency response service, but also to prepare the responding unit for the probable situation they may encounter in the field. Owing to the more technical nature and increased responsibilities of their roles, the Police Telecommunicators receive further training, including on the CAD system specifically.

Feedback from the focus groups revealed that although HEC management has attempted to assimilate the respective 9-1-1 Telecommunicators and Police Telecommunicators into a single cohesive unit, the respective personnel still consider themselves to be two distinct groups.

Although HPD negotiates many of its work conditions for classified personnel through collective bargaining, as a courtesy it has often extended such benefits to its civilian employees, including, in the past, both Police Telecommunicators and Senior Police Telecommunicators. These included a special white civilian “uniform” with HPD and Emergency Communications Division patches. These HPD call-takers and dispatchers felt a close bond with the classified officers they supported in the field. Many Police Telecommunicators reported dissatisfaction with their move from HPD to HEC and loss of the “HPD” uniform, especially after the Senior Police Telecommunicators were able to move back (allegedly because they complained so vociferously), and even communicated a belief that one day they might move back under HPD as well.

We found that part of the low morale issues displayed results from the perception that there is limited career progression. Historically, the career progression path has been from 9-1-1 or Police Telecommunicator and then to a Senior Telecommunicator position either in Police Dispatch, or following specialist EMD (Emergency Medical Dispatch) training, as a Senior 9-1-1 (Fire/EMS) Telecommunicator.

### **HPD – Dispatch Function**

The Police Dispatch function is performed by Senior Police Telecommunicators, who are civilian employees of HPD. From September 2003 through April 2004, the Senior Police Telecommunicators were transferred from HPD to HEC as HEC employees, consistent with their former Police Telecommunicator colleagues. In April 2004, they were then transferred back to the HPD payroll under the supervision of classified police officers.

The current organizational structure provides a limited career path for personnel in the civilian Police Dispatcher function. Historically new Senior Police Telecommunicators were pulled from the related HPD Police Telecommunicators roster; since that function moved under HEC, a pool of replacement or supplementary talent is not readily available.

The Senior Police Telecommunicators are in an ambiguous position since, although they are (civilian) HPD employees and report to classified HPD supervisors, they are also held

## **Section A: Organizational Structure**

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to many of the same HEC policies as their HEC counterparts. Examples include the same sick policy and penalties for tardiness and absences as HEC's employees.

During our time on the call center floor we noted that enforcement of various (uniform, coffee mug) rules was not applied consistently between organizations and even between shifts within the same group.

### **Fire/EMS Telecommunicators Function**

The critical elements of the Fire/EMS Telecommunicator function are to ensure that the requisite information is captured accurately, completely, and in the most efficient manner. This is essential not only to promptly dispatch the appropriate emergency response service, but also to prepare the responding unit for the probable situation they may encounter in the field. Owing to the more technical nature and increased responsibilities of their roles, the Fire/EMS Telecommunicators receive further CAD system training.

The Fire/EMS call taking function used to be staffed by classified HFD personnel. We understand that, in approximately 1999, after proposals to civilianize this function within HFD met strong objections from the Houston Professional Fire Fighters Association, this function was transferred from HFD to the former 9-1-1 Organization. These civilian employees have therefore been accustomed to HEC's policies and regulations for several years.

### **Fire/EMS Dispatch Function**

The Fire Dispatch function is performed solely by classified HFD personnel, as was the situation prior to formation of the Center. Most of these HFD personnel have at least ten years experience; many of the Captains and the Chiefs each have over twenty years experience in the field, often serving at several different stations across Houston. Although HFD personnel were initially conscripted to work in the dispatch arena, all the current Dispatchers chose to join this division as part of their career path. Historically, there used to be a Junior Dispatcher examination, but this had not been offered for several years until now. An exam is currently scheduled for June 2005.

These HFD personnel expressed considerable concern over the repeated threat that the Fire/EMS Dispatcher function might be civilianized.

### **HEC Functions**

HEC management and back office personnel perform two distinct operational functions:

1. The supervision of incoming emergency (9-1-1) and non-emergency (10-digit) calls and all associated "call back" activity to citizens.

## **Section A: Organizational Structure**

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2. The second role is administration and provision of the common/shared Center facilities and related support services, including unilateral establishment and enforcement of rules over the PSAP (call floor), and space planning and assignment, conference room scheduling, cleaning, etc. Part of the overall infrastructure logistics and maintenance are handled by the City's Building Services Department, which has a dedicated on-site manager who coordinates with the HEC management. The fact that operationally these are three organizational teams has created a situation where HEC is perceived by personnel within the other emergency call processing organizations as affording itself preferential treatment. Further, HEC management is criticized for dictating down to them policies, procedures and logistical decisions.

During our focus groups and interviews, specific instances were cited in support of the belief that certain mid-level HEC management personnel demonstrated an excessive (need for) control, overstepped the limits of their authority, and/or allegedly gave preferential treatment to HEC employees / activities at the other organizations' expense. While some of the examples cited such as assigned parking spots, lockers or conference rooms may appear mundane to an outside observer, others such as work space allotment and access or the provision of management software user licenses may directly impact the organizations' ability to manage and deliver their respective response services. Additionally, the perception is that HEC's style of management in performing its facility administration function has created friction between the teams with a common symbiotic mission and precipitated cited examples of alleged reciprocal responses by members of those other organizations.

Given the current duplication of management data gathering and reporting activities by all three organizations and the dysfunctional environment created, no indication exists that any true efficiencies or economies of scale have been obtained from combining the two distinct call processing and facility administration functions.

### **Civilianization**

Based on discussion within the focus groups, individual interviews, and internal memos, the potential civilianization of job functions presently performed by classified employees is an ongoing concern for both HFD and HPD personnel. Both groups are acutely aware that many of the adversarial issues at the Center are exacerbated by the ominous and perceived threat of civilianization. They perceive the eventual goal and rationale of the HEC and the Center to be the civilianization of their functions. Many expressed the view that, while they prefer to remain as classified employees, they also wish that a final decision would be made and adhered to accordingly.

The HFD and HPD staffing plans (note: these are not their actual current rosters) for Center-based personnel reflect the classified headcount noted in the respective sections below:

## Section A: Organizational Structure

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### HFD

- 1 Deputy Chief Dispatcher
- 4 District Chief Dispatchers
- 15 Senior Captains – Shift Supervisors
- 41 Junior Captains – Radio Communications Dispatchers
- 14 Engineer Operators/Firefighters – Customer Service Officers (CSO)

This constitutes a total of 20 Classified Supervisory / Administrative Positions and 55 Total Classified Dispatch and CSO Personnel.

HFD personnel expressed concern as this classified role is currently viewed as a distinct career path. In addition, many HFD personnel are concerned that the civilianization of the dispatch function can lead to a loss of experienced personnel who can not make appropriate dispatch decisions and endanger the lives of both the public and fire department personnel. The accumulation of years of experience in the field, whether it is knowledge of the geography and traffic patterns of a particular region of the city, which can affect dispatch decisions, or knowing when a firefighter may need additional resources, is not something they feel a civilian dispatcher can replicate.

### HPD

- 1 Captain
- 3 Lieutenants - one for each shift
- 15 Sergeant positions – supervisors on the dispatch floor
- 1 Lieutenant – administrative duties
- 3 Sergeant positions – administrative duties
- 92 Civilian Dispatchers (authorized number)

This constitutes a total of 23 Classified Personnel and 92 Civilian Personnel.

By and large, current HPD classified sergeants and lieutenants generally expressed displeasure at the conflicts between the various groups that are present at the Emergency Response Center and a desire to “serve their rotation” and move away from the HEC as soon as possible.

### HEC

HEC management is also well aware of the issue of civilianization. Currently, over two-thirds of the 397 personnel at the Center are civilians. This includes 70 civilian police dispatchers who are civilian employees of HPD but are directly supervised by classified police officers.

Ambiguity and confusion surrounds what was initially intended by civilianization. An internal memo dated April 24, 2004 from the HEC Director cites:

## Section A: Organizational Structure

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*“the original plan was to maintain a classified presence in the HEC center. The agreed upon definition of this was described as a classified person per shift from both Police and Fire. The plans submitted did not define this type of plan, nor did they define complete civilianization. Instead, each organization maintained supervision over their own sections, in some cases actually adding more classified employees in certain areas, never truly accomplishing complete civilianization . . . . If civilianization is the goal for HEC, the concept of “unity of command” must be maintained. Most agencies will define “unity of command” as each individual, unit and situation is under the control of one, and only one, person. The civilianization plan submitted by HFD mixes unity of command, thereby having no unity of command. The HPD plan disregards the complete civilianization concept. Neither of the agencies maintains a civilian “unity of command”, which was the original goal of the HEC concept.*

*The job posting for the HEC Director states that he/she will oversee, manage and direct the operations and functions of the new City of Houston Emergency Communications Center. However, this is at odds with the current situation. The 2003, HPD Meet and Confer Agreement states that HPD will maintain command control and oversight over the dispatching of police calls. Under complete civilianization that will still occur. HEC will follow all HPD Directive and General Orders that dictate how calls will be dispatched. HEC is a support unit for the Police Department.*

*The Meet and Confer Agreement further states that HPD will maintain a classified presence in the HEC center at all times. This will be followed according to the original concept of HEC.*

*HEC Proposed Plan – Total Civilian Personnel Needed to Civilianize HPD/HFD Dispatch – Cost \$9,600,834.92*

- 3 Additional Civilian Operations Managers*
- 18 Civilian Supervisors – FD & PD dispatch functions*
- 42 Civilian Fire Department Dispatchers*
- 14 Civilian Fire Department CSO’s– they handle approximately 9500 calls per month currently*
- 2 Classified Training Liaisons – one from HFD, one from HPD*
- 6 Classified Police Sergeants – 2 per shift to maintain classified presence*
- 6 Classified Fire Sr. Captains – 2 per shift to maintain classified presence*
- 6 Civilian Quality Assurance personnel*
- 92 Civilian Police Dispatchers*
  
- 14 Total Classified Personnel*
- 176 Civilian Personnel*
- 189 Total Personnel*

## **Section A: Organizational Structure**

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### CONCLUSION

*Civilianization utilizing the HEC plan will save the City of Houston, \$1,929,220.54."*

(Source: April 24, 2004 internal memo from the HEC Director)

### Perceived Savings from Civilianization:

Perceived advantages of civilianization include savings driven by the following factors:

- Savings from the differential between civilian and classified base compensation and benefits (See **Appendix K-1** for Salary and Compensation Estimates)
- A distinct career path for civilian call-takers and dispatchers
- Less turnover at the Center since classified employees would not be rotating through the Center
- Operational improvements from cross-training and utilization.
- A single, cohesive team environment.

Best practices dictate that the quality of service delivery, not the financial cost savings, is the most critical measurement criterion that should always be considered.

No substitute exists for the many years of hands-on experience gained by HFD and HPD classified personnel in the field. However, this expertise is not required for all functions currently performed by classified personnel. This expertise could be provided by using a smaller number of dedicated classified "experts", potentially as few as one or two per shift or a total roster of between 7 to 10 for each of HFD and HPD. An example of the ability to perform this function with fewer classified personnel is included within the discussion of CAD Downtime Workaround in the Facility Security and Disaster Recovery section. (For further detail, also see Scenario IV within the Alternative Organizational Scenarios section).

We did not perform detailed cost-benefit analysis of potential civilianization. However, based on a high level review in accordance with the various Scenarios discussed later, we estimate potential cost savings from salary differentials and staffing efficiencies alone should exceed \$1.8 million. See **Appendix F-1**.

## **Section A: Organizational Structure**

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### Visit to the City of Chicago's Office of Emergency Management and Communications

Personnel from Jefferson Wells were afforded an opportunity to tour the Chicago Office of Emergency Management and Communications Center ("OEMC") and gain further insight into a mature emergency call center and discuss the City of Chicago's intent concerning consolidation, implementation plan, and outcome. We were able to meet and interview the Director of Information Services and Media Coordinator, who is a long-term veteran of the OEMC and an experienced EMT/Firefighter and dispatcher. We were also granted a tour of the OEMC facility by staff.

The OEMC manages and operates the City of Chicago's public safety communications systems that coordinate the response of police, fire and Emergency Medical Services (EMS) resources to 9-1-1 calls. The OEMC operates a voice and data radio system, giving police and fire personnel, on the street, valuable information to help them respond quickly to emergency situations. The OEMC's Emergency Management Team acts as the coordinator for the City of Chicago's efforts to develop, plan, analyze, implement and maintain programs for disaster mitigation, preparedness, response and recovery. The Emergency Management Team is also responsible for directing the activities of City departments and other agencies at disaster scenes.

Chicago's OEMC was the first facility in the United States to consolidate all of emergency management functions and is viewed as "state-of-the-art" not only in the United States, but world-wide. It has received considerable recognition for meeting the intent of the consolidation in the 10 years since it was established. The facility often grants tours of the facility to dignitaries from the United States and other countries because of its uniqueness. The OEMC operates in a 161,000 square foot facility located on the west side of Chicago. Constructed in 1995, the Center relies on an internally secure communications network with hundreds of miles of buried fiber optic and copper cable dedicated to providing 9-1-1 and 3-1-1 services.

A "compare and contrast" between the Chicago OEMC and the Houston Emergency Center activities today may not be appropriate because the OEMC was established almost 10 years ago. Instead, the OEMC might be viewed more as a benchmark and "future state" goal for the HEC.

When it was determined that the emergency management function for the City of Chicago should be consolidated, planning was conducted over a period of three years by a committee consisting of Police Department, Fire Department and emergency medical officials. During that time, the Chicago Fire Department began civilianizing its dispatch function from fire-fighter personnel to civilians before the OEMC was established. It was also determined that through consolidation, all commissioned police officers' dispatch positions would be civilianized through attrition.

OEMC personnel stated that initially a sense of "culture" conflict existed between the consolidated entities, but because of the Mayor for the City of Chicago's strict

## **Section A: Organizational Structure**

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requirement for compliance with the intent of the consolidation, the different cultures consolidated under one facility were commanded to become one culture.

Leadership is centralized through the Executive Director of the OEMC who reports directly to the Mayor of Chicago's office. Currently, all fire dispatch is civilianized and though over 20 commissioned police officers remain on staff at the OEMC, through attrition these positions are being civilianized. However, while employed at the OEMC, commissioned police officers must adhere to OEMC policies and procedures. All administrative policies and procedures are followed by each division under the OEMC.

The Executive Director operates the facility with the understanding that OEMC employees are the key to the OEMC's success and therefore has created an environment that reduces the stressful functions of OEMC employees. This includes three shifts of eight hours in duration based on seniority and with overtime required during pre-planned and historically documented peak periods of time due to special City functions or emergency circumstances. The OEMC maintains a call-log for employees willing to voluntarily work overtime and requires mandatory overtime only as necessary.

The OEMC has stated that during the first year after the consolidation, employees were out ill and using the Family Leave Medical Act ("FMLA") because of the stress of the consolidation and newly aligned responsibilities. However, during this time period, management started to focus on the employees and their needs, creating an atmosphere of care and consideration. Currently, call-takers and dispatchers can take breaks after finalizing difficult calls and go to the "oasis" break-area that has comfortable seating areas, natural lighting, and calming music used to relax and release anxieties.

The Chicago OEMC's call-takers and dispatchers wear a professional blue OEMC dress shirt and pants uniform, while floor supervisors wear the same uniform but with a white shirt instead of blue. Each uniform is adorned with an OEMC shield patch; OEMC supervisors wear a silver shield and patch. Some of the remaining commissioned police officers continue to wear their police uniform with a side-arm and senior commissioned police officers wear professional dress street clothes with their side-arm and police shield attached to their belts. The administrative staff dress code is professional casual, while the senior staff dresses professionally with shirt and tie.

Training of 12 weeks is required for all new OEMC call-takers, Fire/EMT and Police dispatchers and each must complete a one-week "day-in-the-life" field tour within their individual disciplinary area. The OEMC has a philosophy that until these employees "walk in the shoes" of the commissioned police officers, fire-fighters and EMTs, they cannot fully perform their jobs until they understand the daily environment "out on the street." In addition, and as part of the firefighters' and police academy, each new trainer must spend a day at the OEMC to gain insight concerning the call taker and dispatcher function. Career paths are designed for police and fire, and provide several different levels for career progression upon the completion of related tests and passage.

## **Section B: Staffing Methods**

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### **Section B: Staffing Methods**

#### **Improvement Opportunity**

Based on a review of current staffing data, focus groups with all levels of employees, and individual interviews to discuss process and procedures, we found high levels of mandatory overtime and drafting, and related absenteeism. As a result, there is a significant risk of insufficient personnel to staff all the critical emergency call response positions on some shifts. Related sick and overtime expenses and low morale can all be traced back to the number of personnel available for staffing purposes and how these employees are deployed, especially on specific shifts.

#### **Summary Recommendations**

Below is a summary of recommendations for this section of the report. Please see the “Recommendations” section of this report for a more detailed recommendations discussion.

- The City and the respective HEC and HPD management should start an immediate, proactive recruitment program and campaign to staff up all positions operating at sub-optimal levels. The shortage of available staff is considered one of the root causes of both low morale and increasing absenteeism and may place at risk the delivery quality and reliability of critical emergency response services. This risk is most evident in the Police Dispatch classified function.
- HEC and HPD management should immediately consider a program where interested and qualified Police Telecommunicators could undergo training and then spend a probationary period as HPD Police Dispatchers. This could re-establish a career path and resolve temporary staffing shortages.
- If HPD is unable to identify and hire additional headcount to reduce present overtime rates, the City should consider HPD management’s proposal for a forty hour work week, comprised of three 12 hours shifts and a single 6 hours shift per week. This should provide all employees with three and one half days off each week and potentially generate almost \$300,000 in overtime savings and a further \$189,000 from a savings in new hire headcount.
- We recommend that the City review its current FMLA policies and practices, including turnaround time and required medical authorization and second opinions, primarily for intermittent FMLA conditions.
- To avoid the risk of any potential non-compliance with Department of Labor legislation or related penalties, we recommend that the City clearly communicate which portions of a shift are paid and which represent unpaid time.

## **Section B: Staffing Methods**

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- We recommend that all classified HPD personnel assigned to the Center, especially in a supervisory capacity, be fully trained on the CAD system.
- Management should implement both a revised sick policy, which does not penalize employees for taking up to their statutory (per City of Houston) 64 hours of sick time, and an incentive program for minimal sick time and unscheduled absences.
- We recommend that the City both empower and require the respective groups' management to fully staff the multiple call processing functions, all of which are currently operating with a less than fully authorized or required complement of personnel. The City's cumulative savings across the five major call processing functions from the avoidance of overtime pay premium could aggregate to almost \$1 million per annum. (See I-Series Appendices).
- Respecting the effect on employees' personal lives created by uncertainty over their work schedules, we recommend that in order to achieve an improved work/life balance, the HEC should alter the current 4-week scheduling process to a much longer timeframe. We recommend a process of 12 weeks, 12 weeks, 12 weeks, and 16 weeks that would begin in the first two weeks payroll period in January each year.
- In conjunction with the "quarterly" scheduling process, the policy for vacation holiday requests could be addressed to potentially minimize "call-outs." (e.g. process vacation requests more frequently than an annual basis).
- As a further future refinement, the Center should consider implementing a semi-annual shift bidding process.

### **Discussion:**

A critical contributory factor to Center performance is the magnitude and method of staffing in the respective functional areas. One area of particular contention consistently raised by employees in various groups is the change in criteria used to determine shift bidding. Historically, the former 9-1-1 organization's management has applied attendance as its primary criterion for shift determination, whereas current and former civilian HPD employees are accustomed to a seniority-based process. With the move to a common Center, all civilian employees are evaluated based on a combination of three factors: attendance, seniority, and EPE.

As employees adjust to a more attendance-based system, where minor attendance infractions may have a significant impact on their future shift schedules, this has driven a perceptible change in other patterns of attendance behavior, especially once employees pass the point where their subsequent year's bidding and shift assignment is adversely impacted. In particular, this appears to have precipitated a demonstrated increase in absenteeism and sick time, including FMLA usage, by personnel assigned to less desirable shifts.

## **Section B: Staffing Methods**

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The situation is further exacerbated by the loss of roster personnel through attrition, leaving fewer people to absorb the additional workloads. The Police Telecommunicators' ranks have dropped from 93 in both 2002 and 2003 to 85 in 2005 (**Appendix I-1**), although the recent hiring and cross-training of 11 new 9-1-1 call-takers may help to alleviate this. The number of Police Dispatchers has dropped from 85 at the beginning of 2003 to 70 in March 2005 (76% of their authorized roster level). (**Appendix H-1 & H-2**) Although the roster staff levels of 9-1-1 Telecommunicators and Senior (Fire/EMS) Telecommunicators have remained fairly constant, they have experienced increased absenteeism and overtime since the Center opened.

This phenomenon is self-fulfilling as fewer people are available to staff an increasing number of open shift positions and are tempted or forced to resort to their co-workers' seemingly unpunished practices in order to regain their personal work/life balance. As this vicious cycle continues to spiral downwards, it threatens the quality and timeliness of the service provided to citizens; a significant risk exists that available personnel may be insufficient to staff all the critical emergency call response positions on some shifts – including those shifts with higher incidence rates.

### **Shift Bidding**

Annual shift bidding takes place in November/December of each year. HEC personnel submit their shift bids for the upcoming year, which determine whether call-takers are on the day, day swing, evening, night swing, or night shift and which consecutive two days off they are scheduled for each week (i.e. Monday and Tuesday, Wednesday and Thursday, etc.). See **Appendix C** for a detail of call processing shift schedules.

Effective 2004, the processing of awarding shifts changed from a process based strictly on seniority to a process which weighted equally: seniority, employee performance evaluation (EPE) scores, and prior year attendance.

Competition for specific shifts is fierce, and personnel with poor attendance tend to pick last and most likely end up on the same, least desired evening shift and with less desirable (and no weekend) days off. In the past, all HPD civilian personnel (Police Telecommunicators and Dispatchers) bid on shifts based solely on seniority. Since those with the most years of service automatically received the vacation and shifts they desired, there was neither an incentive nor a penalty to drive (perfect) attendance. The move to HEC therefore represented a significant paradigm shift for the formerly HPD Police Telecommunicators for whom attendance suddenly became the primary determinant. In practice, this should not represent a major change, since seniority is then used as the determinant to rank those with the better attendance. However, we understand that many had less than perfect attendance and so ended up with less favorable shifts.

Shift bidding for the HPD Civilian Police Dispatchers is still based on seniority. However, since many HPD civilians have significant years of service, colleagues with

## **Section B: Staffing Methods**

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still considerable, but fewer, years of service may still find themselves on less desirable shifts with no foreseeable likelihood of that changing.

### **Scheduling, Including Mandatory Overtime**

Once the annual shift bidding process has occurred and vacation (based on seniority) has been scheduled, management prepares their monthly shift schedules. Due to periodic adjustments that must be made throughout the year for individuals out sick, injured on duty (IOD) or suspended/relieved of duty (ROD), on scheduled and intermittent FMLA, etc., some mandatory overtime is often necessary to accommodate these absences and ensure that minimum required staffing levels are still maintained. Such mandatory overtime is usually assigned on a rotational basis, but following HEC policy that no individual be assigned more than 20 hours total overtime in any week. The current HEC practice is to distribute these schedules during the roll call process for a subsequent 4-week period.

Based on the feedback received from the focus groups and interviews, the schedules are usually distributed no more than one week ahead of their effective start date. Occasionally, they are distributed as early as two weeks ahead but conversely, sometimes they are only distributed as early as one to two days ahead of their effective date. Furthermore, employees who are off on those one to two days do not receive their schedules for the next 4-week period until they are already in effect. Also, individuals requesting additional vacation outside the vacation polling process, or requesting deferred holiday usage, are often not informed if these requests have been approved until the next 4 week schedule has been disseminated.

We understand that for the November/December 2004 time period, a one-time exception was made to the scheduling process in that the schedules distributed in November covered the entire holiday period through December. Due to attempts to cross-train certain employees, individuals expressed their displeasure at having less than a one-week notice that their shift schedule was changing for a two-month period.

### **Drafting (Additional Compulsory Overtime)**

Whereas mandatory overtime relates to overtime that is scheduled ahead of a shift and often worked immediately prior to the shift, drafting refers to unscheduled overtime, which is required to compensate for an unexpected shortage in headcount caused by absenteeism. This usually arises when employees “call out” for the subsequent shift. Although some groups have used volunteerism to cover this, i.e. people signed up in a “red” book if they wanted overtime, in practice supervisors generally have to “draft” personnel on the current shift to work the additional (usually 4) hours. Since many employees apparently wait until their shift time to “call out” (e.g. as being sick), this lack of foresight and courtesy leaves their drafted colleagues with little or no time to rearrange personal commitments (e.g. to obtain alternative childcare).

## **Section B: Staffing Methods**

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The evening shift, which is also the busiest shift, experiences a high incidence of “call outs” (absentees). The respective day and evening shift supervisors then draft personnel from the day shift to cover the evening shift. In some instances these personnel may have already worked 4 hours of scheduled mandatory overtime prior to their regular 8 hours shift, essentially placing personnel in critical functions for at least 12 if not 16 successive hours.

As mandatory overtime, compounded by further drafted overtime, is the norm rather than the exception, participants in the focus groups expressed anger that the constant uncertainty over their individual schedules creates havoc with their personal lives. Individuals are unable to firmly commit to attend doctor appointments, make consistent childcare arrangements, and attend personal events, unless they successfully poll for vacation during the needed time periods during the November/December polling process. Due to the minimal lead-time in receiving their 4 weeks schedules and the constant possibility of mandatory drafted overtime, individuals are often unable to commit to outside activities even on their daily off periods or scheduled two days off.

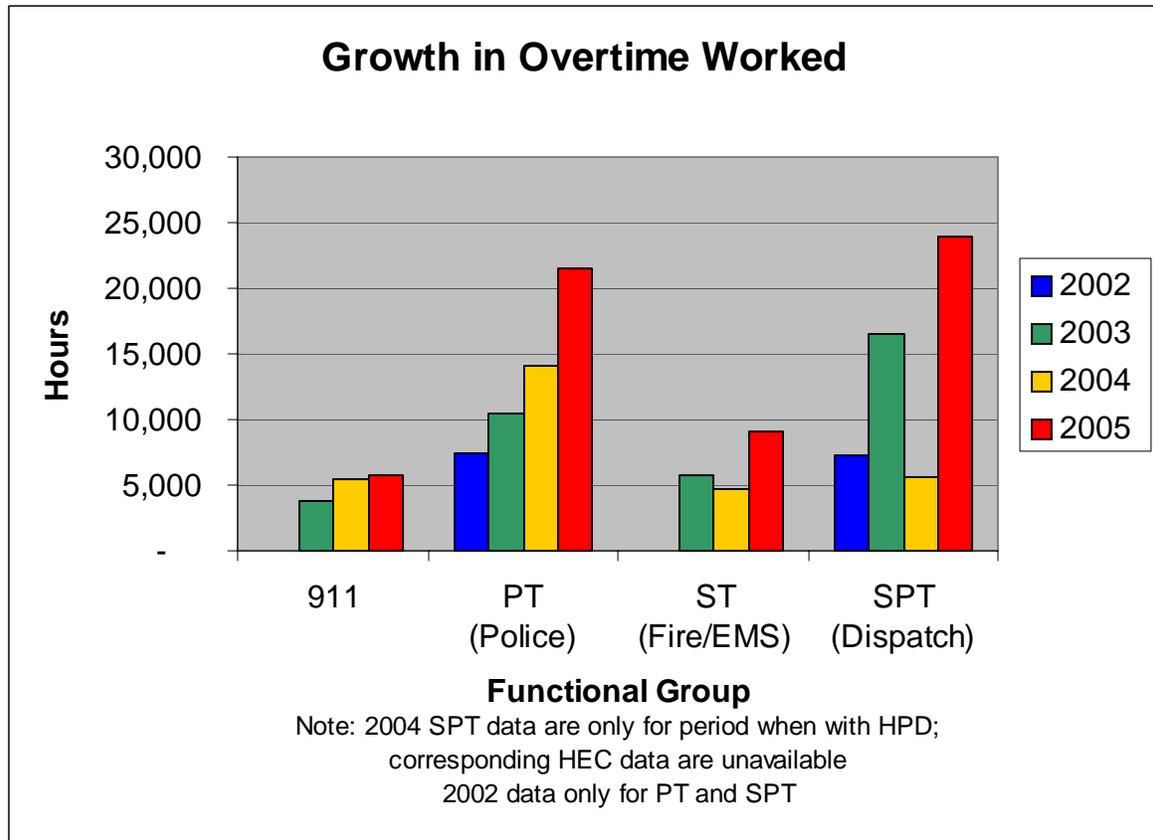
During the focus group sessions, many participants, both at the employee and supervisory level, implied that one of the significant reasons for excess absenteeism is due to employees having to commit to outside of work events prior to the distribution of the 4 week schedules and the employees choosing to attend these personal obligations rather than reschedule them, if possible, around mandatory overtime periods.

### **Review of Overtime Incidence and Costs for HEC, HFD and HPD**

A review of available overtime data provided by respective management, for the 2002 through 2005 to date benefit years, indicates a trend of consistently increasing overtime worked. In several instances, the increased overtime has been absorbed by a declining number of available roster personnel, resulting in even greater increases in the magnitude of individual overtime incurred per person.

HEC, HFD and HPD each have their own management information systems and do not maintain all payroll-related information in common or readily available formats. This precludes some direct comparability between groups, compounded by transfers of some functions between HPD and HEC.

## Recommendations



### Review of Overtime Incidence and Costs for HEC Telecommunicators

The increase in individual overtime rates is common across all HEC Telecommunicator groups, but especially among Police Telecommunicators' whose ranks also declined almost 9% since 2003. **(Data per Appendix I-1 to I-3)**

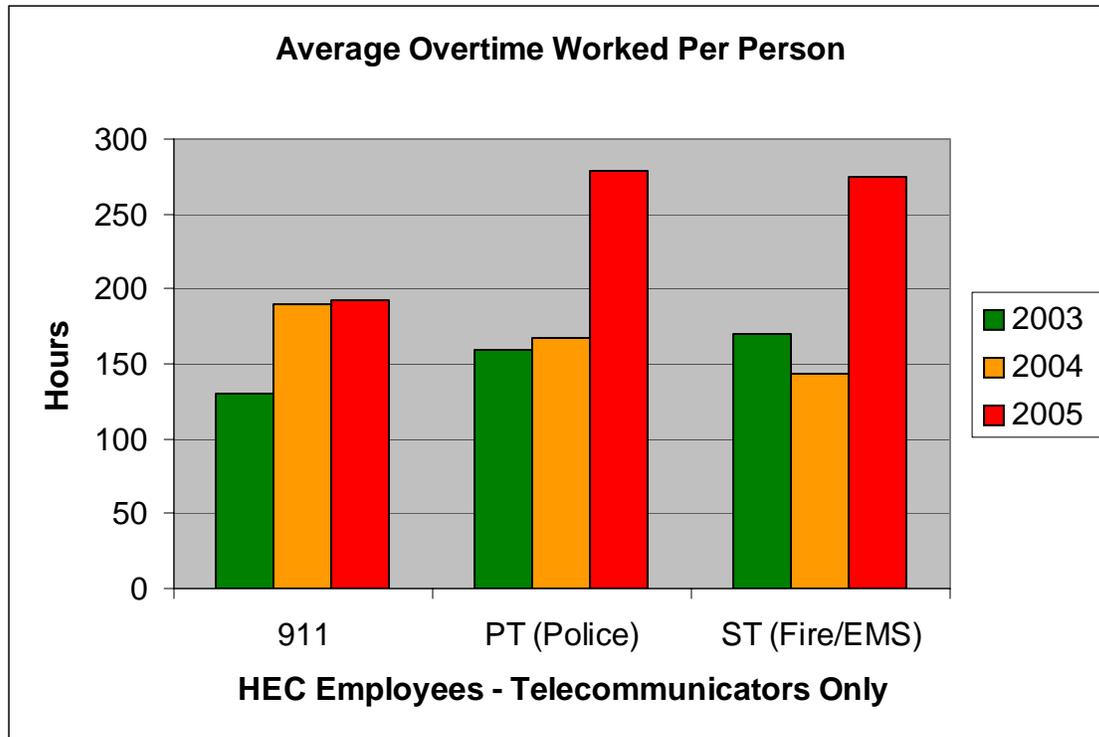
Overtime Worked by HEC Telecommunicators	Total	Overtime	Hours	Per Person
	2003	2004	2005	2005 vs. 2003

9-1-1	130	190	192	+ <b>48 %</b>
Police	159	167	279	+ <b>75 %</b>
Fire / EMS	170	143	274	+ <b>61 %</b>

Police Telecommunicators	2003	2004	2005
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Roster Headcount	93	89	<b>85</b>
Number Working Overtime	66	84	<b>77</b>
% Working Overtime	71 %	94 %	<b>91 %</b>

**Recommendations**



Approximately \$800,000 in estimated annualized 2005 overtime expense for HEC, or over \$1 million including associated burden for benefits, could be reduced by fully staffing the HEC (9-1-1, Police, and Fire/EMS) Telecommunicator functions. This should represent a net annual savings to the City of Houston of \$266,000, or \$346,000 including burden, for the otherwise 50% pay rate premium on the overtime that should be avoided:

HEC Overtime-Civilian	Budgeted	Estimated*	Overrun	Burden**
Hours at Base Pay		\$534,000		
Premium Pay for Overtime (50%)		<b>\$266,000</b>		<b>\$80,000</b>
Total Expense, excluding benefits	\$498,432	\$800,000	61 %	\$240,000

\* Extrapolation of average benefit year to date HEC Telecommunicator only overtime hours at recent average pay rate of \$22 per hour including 50% premium for overtime.

\*\* Based on recent effective burden rate as supplied by City of Houston.

**Review of Overtime Incidence and Costs for HPD Police Dispatchers**

HPD civilian overtime costs for the Fiscal 2003 and Fiscal 2004 years are not strictly comparable to 2005, as the Police Dispatchers were employees of both HEC and HPD

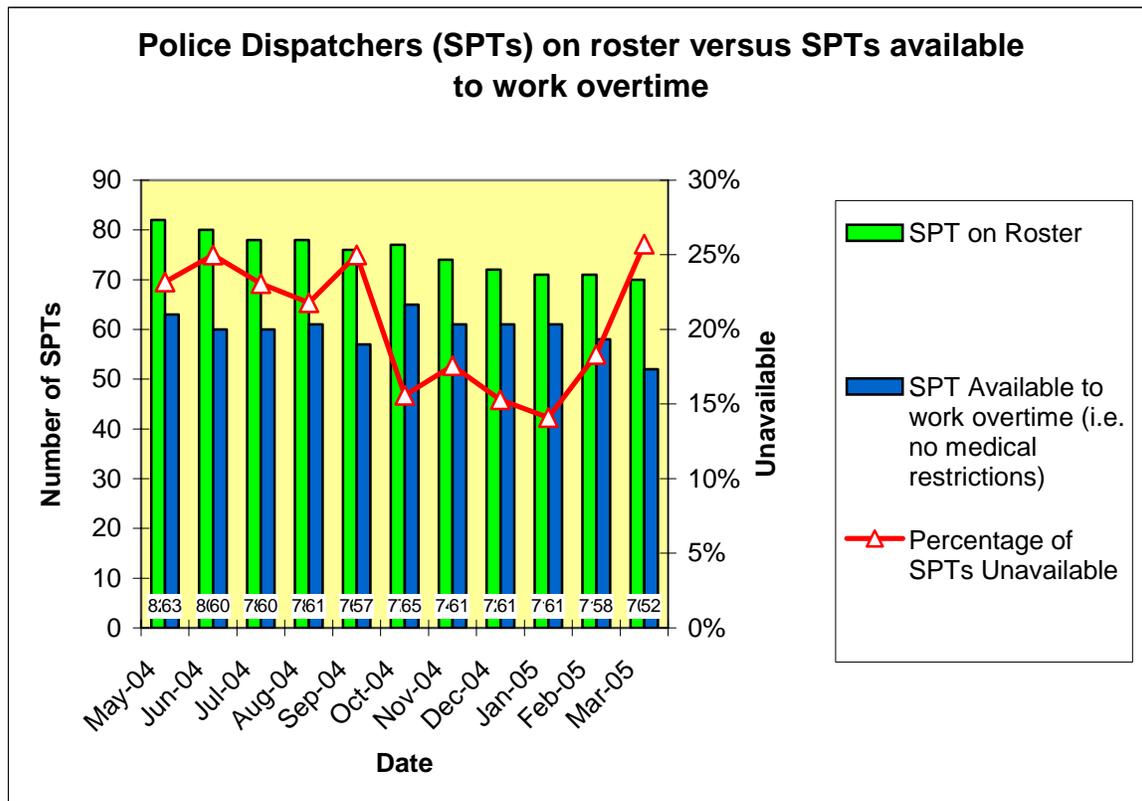
## Recommendations

during different parts of each year. The requisite data is split between separate City organizations and is not fully available.

However, Fiscal 2005 overtime through April 28<sup>th</sup> of almost 18,000 hours represents a six-fold increase compared to either Fiscal 2001 or 2002, the last two full years when the function was fully under single (HPD) management. **(Appendix I-6)** This six-fold increase is attributed to a combination of employee attrition, sick leave and absenteeism.

The Police Dispatching function is currently operating with only 70 civilian personnel versus an authorized roster of 92, which necessitates significant and demoralizing amounts of both mandatory and last minute drafted overtime. Headcount has dropped considerably since the function returned to HPD jurisdiction in early 2004.

This is further compounded by the increasing incidence of personnel on (medically) restricted duty and unavailable for overtime, reducing the personnel available for overtime to less than half the authorized roster level. **(Appendix I-4)**



**(Appendix H-2)**

**Section B: Staffing Methods**

Conservatively, approximately \$550,000 in estimated annualized 2005 overtime expenses for HPD, plus associated burden for benefits, could be reduced by fully staffing the HPD Civilian Police Dispatcher function. This should represent a net annual savings to the City of Houston of \$183,000 plus associated burden, for the otherwise 50% pay rate premium on the overtime that should be avoided. (Appendix I-6)

HPD Overtime-Civilian	Budgeted	Estimated*	Overrun
Hours at Base Pay		\$367,000	
Premium Pay for Overtime (50%)		<b>\$183,000</b>	
Total Expense, excluding benefits	\$350,000	\$550,000	57 %

\* Extrapolation of 2005 Fiscal year to date overtime paid, including 50% premium pay.

The rolling average monthly overtime expense appears to be increasing during 2005:

2005 Period Reviewed	Period Duration	# Months To Date	Total Paid To Date	Monthly Average	Annualized Expense
Fiscal Year	July-Jun	10	\$462,000	\$46,200	\$554,400
Benefit Year	Sept-Aug	8	\$404,000	\$50,500	\$606,000
Estimated	March	1	\$66,000	\$66,000	\$792,000

As noted in the above table, this is further demonstrated by estimated costs to cover March 2005 shortfall in staffing. Classified HPD management estimated a shortfall in available HPD civilian Police Dispatchers for March 2005 equivalent to 315 person shifts or essentially 10 persons per day. Based on the average hourly rate paid in February 2005 of approximately \$17 per hour, this represents a monthly cost of approximately \$66,000 (or over \$1 million if annualized). This could be avoided by hiring an additional 17 Senior Police Telecommunicators, being the roster headcount required (using an industry standard factor of 1.7) to provide 10 available personnel, including coverage for breaks, holidays, vacations, etc.

Instead of using overtime, if the City were to hire the estimated 17 additional roster headcount required to cover current expected staffing shortfalls in the Police Dispatch area, the related savings should not only cover the cost of these personnel but also generate approximately \$200,000 in net annual savings through avoidance of overtime premium. The additional 17 personnel would also increase the total roster to 87 or 95% of the authorized staffing level. (Appendix I-4)

## Section B: Staffing Methods

	FTE	% Roster	Annualized Base Cost*	Overtime Premium*	Total Expense*
Authorized Roster	92	100 %			
Current roster available	70	76 %			
March shortfall on shifts	10		\$673,455	\$336,728	\$1,010,183
Roster # needed to cover	17	19 %	\$815,527	none	\$815,527
Total with additional 17	87	95 %			
Savings from hiring vs. overtime					\$194,656

\* Costs include burden at 30%.

Overtime for classified HPD personnel (who primarily perform supervisory and related administrative functions) for the 2005 Fiscal is tracking close to budget and is not inconsistent with the overtime level for the last several years.

### Review of Overtime Incidence and Costs for HFD Dispatchers

HFD was unable to provide summary overtime hours and expenses for its classified personnel at the Center. However, a comparison of the total classified staffing which HFD management uses per shift to the actual roster headcount available indicates an average weekly shortfall of 480 hours or 12 full time equivalent (FTE) personnel; this shortfall is currently met through overtime.

As detailed further in **Appendix I-5**, the total estimated annualized cost of this overtime, including benefit burden, exceeds \$1 million. Approximately \$347,000 of these costs represents the 50% premium for overtime pay, which should be avoided if these positions were staffed using additional personnel (at a regular base rate of pay) instead of overtime labor.

### Roster Analysis

#### HFD and HPD Dispatch Assignment Roster Analysis

However, if the headcount levels required by HFD and HPD to staff their respective dispatch functions are compared, it is questionable whether the number of HFD personnel noted above is even necessary. Both currently staff with approximately the same number of personnel per shift, including supervisors. Both the HFD and HPD dispatch functions are staffed based on a fixed number of radio / mike or "TAC" positions plus backchannel and supervisory positions as opposed to being driven by call volumes. HFD has six fixed radio (dispatch) positions; HPD has 12. Strictly, these are not fully comparable, since they are also based on different allocations of field locations. However, there are also significantly more Police calls to be dispatched; HPD's volume of dispatched calls is more than six times that for Fire/EMS. For example, the total calls received and

## **Section B: Staffing Methods**

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dispatched in 2004 by Fire/EMS and Police, as supplied by HEC and HPD respectively, and as noted in **Appendices D-9 and D-10**, are:

<u>2004</u>	<u>9-1-1 &amp; 10 Digits Calls Received</u>	<u>Total Calls Dispatched</u>	<u>% Dispatched</u>
Fire/EMS	384,720	261,900	68%
Police	2,738,922	1,668,000	61%

(For further details of comparative call activities, see discussion in next section: Analysis of Call Handling Activities and Staffing Levels).

The total number of physical units dispatched by Fire/EMS is higher than the calls dispatched; however, it is not possible to quantify how many of these Fire/EMS units are dispatched simultaneously with the initial response and how many are dispatched later by the Fire/EMS Dispatcher, based on directions from personnel in the field. Conversely, although back ups are sometimes required, Police Dispatchers normally dispatch a single unit to each call.

### **Absenteeism / Sick Leave / FMLA**

Dissatisfaction with personal shift schedules compounded by mandatory overtime and especially drafting has resulted in an increased incidence of absenteeism, both paid and unpaid, with personnel on less popular shifts frequently “calling out”, as noted above. Since any sick time taken in excess of 24 hours has a detrimental effect on shift bidding, but FMLA (by law) cannot, employees have increasingly filed FMLA claims. Once their sick and vacation time is exhausted, many have continued to take unpaid FMLA.

#### Absenteeism

Past practices to remediate absenteeism, such as suspending personnel, do not appear to have been effective; instead they may have actually increased both the magnitude of absenteeism and the use of FMLA. Ironically, the past practice of only suspending personnel for one day may have rewarded the employees by then affording them the opportunity and requirement to work overtime as colleagues are drafted to cover for suspended or absent personnel.

Where employees see little chance of improving their shifts, there is even an incentive for them to take turns to call out, even if they have exhausted paid sick leave, to generate such mutual overtime opportunities. In addition, the lack of any perceived action being taken against the initially small number of known “offenders” has discouraged their more reliable colleagues, allowed such abuses to fester, and even precipitated the contamination of further personnel in the same and adjacent work groups.

## **Section B: Staffing Methods**

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Absenteeism and FMLA have an adverse impact on morale and work-life balance by requiring (the implicitly more conscientious majority of) employees to rearrange personal family commitments at little or no notice and to work inconvenient overtime and shifts to compensate for the absenteeism of less conscientious colleagues.

Some employees' absenteeism has significantly reduced or prevented their vacation accruals. When these employees have still taken scheduled, but now unearned, vacation, which is contrary to City of Houston policy, this has resulted in the subsequent docking of their pay. We learned of some employees who, as a result, have allegedly had zero net pay in their subsequent pay slips and had to write a check to cover (the employee portion of) their benefits coverage.

From an economic perspective, the use of drafting increases the cost of hourly service coverage by at least 50% (due to overtime being paid at time and a half), more if factoring in any paid sick time. Also an additional indirect cost exists related to the management time required to administer related claims processing, approval/denial, counseling, etc.

### Sick Leave / FMLA

Although many employees may have legitimate sick, FMLA and workers compensation claims, and all approved claims are also supported by appropriate documentation of FMLA eligibility from an employee's personal physician, management has asserted that there is some degree of FMLA abuse at the Center. The significant increase in various FMLA claims in the period subsequent to the Center's opening (as compared to the 2003 Benefit Year) might be indicative of potentially abusive practices, including the alleged use of FMLA to legitimize intermittent individual absenteeism.

Current sick and overtime policies have led to an increased use of FMLA; this contagious situation already leaves some functions with a limited pool of reserve personnel and is spreading to others. This exposes the Center to a significant risk within the near term that there may be insufficient people – both present and available to draft – to staff critical functions, especially the Police Dispatch function. The fact that this situation has not already arisen is attributed to the professional commitment to serving the citizenry of those dispatchers who regularly meet their schedules and are being drafted. If a substantial portion of a given shift were to be affected by illness or adverse weather conditions across Houston or collectively chose to call-out sick, various response capabilities could be severely handicapped.

Our review initially identified a high incidence rate of absenteeism by civilian police dispatchers on the evening shift. However this phenomenon appears to have infected all civilian groups across the Center over the last couple of years. (We were unable to obtain comparative absentee, sick and FMLA data for the classified HFD and HPD personnel assigned to the Center). Many respondents from all levels of their organizations attribute this to a combination of individual employees' work ethic and the current sick (and FMLA) policies and attendance based methodology for shift determination.

## Section B: Staffing Methods

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Perhaps purely coincidentally, this increase appears to coincide with the assignments of former HPD civilian employees. Initially HEC inherited the former HPD employee Police Telecommunicators; subsequently HEC promoted a number of these personnel into Fire/EMS Senior Telecommunicator positions. The absentee / sick / FMLA rates of these two segments have increased considerably over the last two years.

Average FMLA usage statistics for smaller groups can possibly be skewed by longer-term activities, such as pregnancy leave; from discussions with respective management, we do not believe that such activities significantly distort the trends we identified.

In general, we witnessed a significant growth in both sick and total FMLA, driven by the compounding effect of two factors: more people taking FMLA, and those people taking an increasing number of hours per person. Management attributes many of those hours to intermittent rather than single longer duration FMLA events.

As detailed in **Appendices J-2 to J-4**, FMLA usage by employees at the Center appears to have almost doubled in the two benefit years subsequent to the creation of the Center compared to the prior (2003) benefit year. This is evident in the total FMLA usage by all HEC Employees (including related support, management and administration personnel).

### Total FMLA Usage by All HEC Employees

	2003	2004	2005 YTD (7 months)	2005 (Annualized)
Sick FMLA	2,464	4,285	2,668	4,574
Vacation FMLA	1,805	4,344	2,230	3,823
Unpaid FMLA	2,651	4,310	2,572	4,409
Other	139			
Total FMLA	7,059	12,939	7,470	12,806
Employees on FMLA	43	75	60	60
Avg. Hrs / Employee	164	173	125	213

Management attributes the increased FMLA usage to the fact that it cannot be counted against employees in determining attendance, which now constitutes a major element of the employee performance evaluation (EPE) calculation. (See the subsequent discussion of EPE for further details) Particularly noteworthy are:

- An increasing number of employees claiming FMLA leave and are also averaging more hours usage per person across the various FMLA categories;
- A significant increase in unpaid FMLA - also indicative that employees have exhausted all their available accumulated paid sick and vacation leave.

**Section B: Staffing Methods**

**Total FMLA Usage by HEC Telecommunicators**

	2003	2004	2005 YTD (7 months)	2005 (Annualized)
<b>9-1-1 Telecommunicators</b>				
Total FMLA Hours	1,180	731	859	1,472
Employees on FMLA	6	5	7	7
Average Hours / Employee	197	146	123	210
<b>Police Telecommunicators</b>				
Total FMLA Hours	4,819	8,940	4,950	8,486
Employees on FMLA	26	43	37	37
Average Hours / Employee	185	208	134	229
<b>Fire/EMS Telecommunicators</b>				
Total FMLA Hours	397	1,782	852	1,460
Employees on FMLA	8	17	9	9
Average Hours / Employee	50	105	95	162

These increased total and average per employee FMLA incidence rates are evident at the individual function and FMLA category levels, as exemplified by the Sick FMLA taken (**Appendix J-1**) by the Fire/EMS Senior Telecommunicator and the Police Telecommunicator ranks. The Fire/EMS Senior Telecommunicators tenure under current 9-1-1 Management and regulations pre-dates the Center. The Police Telecommunicators originates with the Center. The similar growth trends would appear to correlate to changes in the environment caused by the Center consolidation in addition to the transition to a more performance based evaluation process.

**Sick FMLA Usage by HEC Police Telecommunicators**

	2003	2004	2005 To Date	2005 *Annualized
<b>Police Telecommunicators</b>				
Total Headcount	93	89	85	85
Percentage on Sick FMLA	28 %	48 %	44 %	44 %
Number on Sick FMLA	26	43	37	37
Hours Taken	950	2,010	1,100	1,885*
Average Hours / Employee	37	47	30	51*

## Section B: Staffing Methods

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### Sick FMLA Usage by HEC Fire/EMS Senior Telecommunicators

	2003	2004	2005 To date	2005 *Annualized
<b>Fire/EMS Sr. Telecommunicators</b>				
Total Headcount	34	35	34	34
Percentage on Sick FMLA	24 %	49 %	26 %	26 %
Number on Sick FMLA	8	17	9	9
Hours Taken	288	845	457	784*
Average Hours / Employee	36	50	51	87*

More FMLA data detailed by individual functions, benefit periods and categories of FMLA usage are contained in **Appendices J-1 to J-4**.

Since the Police Dispatchers moved twice during these periods – from HPD employees to HEC employees and then back again – less continuous data is available. However, while HEC data for the 2003 benefit year (**Appendix J-1**) indicates that 13 civilian Senior Police Telecommunicators or 15% of the group took FMLA in Fiscal 2003, subsequent data since May 2004, when first recaptured by HPD, shows an increasing number and percentage of Police Dispatchers unavailable owing to various medical (FMLA) restrictions. (**Appendices H-1 and H-2**)

As demonstrated in the related graph (included above under Review of Overtime Incidence and Costs for HPD Police Dispatchers) the shortfall in available personnel has increased in 2005 from the 11 months' low of 14% in January 2005 to a high of 26% in March 2005. Not only is the Police Dispatch function therefore currently operating with only 70 dispatchers (76% of its authorized staffing level), but when medical restrictions are factored in, that staffing drops to 52 Senior Police Telecommunicators (57% of the authorized roster of 92). (**Appendix H-1 to H-2**) The Police Dispatch function is presently at the critical point where, if enough people on the subsequent shift were to call out, there could be an insufficient number of personnel (i.e. readily available and medically permissible to draft) to cover the minimum number of positions required to perform the Emergency Police Dispatch function.

We also noted that most classified HPD personnel are not trained in the new CAD dispatch system. Although police communicators could manually write out and drop call slips to classified police supervisors, at best this would probably significantly and adversely affect the speed of response, especially on critical Priority 1 and Priority 2 calls. In addition, usually only three to four classified supervisors are on site per shift – possibly insufficient to staff all the mike positions plus back channels until such time as additional classified personnel could be called in to the center, including potentially on/off duty patrol personnel.

## **Section B: Staffing Methods**

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### **FMLA Approval Turnaround**

Although we have identified statistics which indicate that FMLA usage has increased substantially since 2003 (benefit year), we were informed in the focus groups that FMLA requests may not always be processed in a timely manner.

The current request for FMLA process includes the following:

- Employees obtain an FMLA packet from the respective administrators at the Emergency Response Center.
- Employees have 15 calendar days to complete the packet, including a section to be completed by a doctor.
- Employees submit the completed FMLA packet to their respective administrator and await a determination of approval of their FMLA request.
- Per the City of Houston Executive Order 1-34, Section 23.4, it is the responsibility of the supervisor to “appropriately designate FMLA leave and immediately notify (within 1-2 working days) the employee of the leave designation.”

During the focus groups, many HEC employees stated that they are not always made aware of whether their request for FMLA leave was approved until several weeks after they submit their request.

### **Staffing Levels**

The civilian Police Dispatch section has continued to function with a steadily decreasing roster, declining from 85 personnel or 92% of its authorized level of 92 Senior Police Telecommunicators in January 2003 to 70 personnel or 76% of authorized headcount in March 2005. **See Appendix H-1.**

We also learned that prior to its move to the Center the group also acquired both the Airport mike and subsequently during 2003 the Citywide mike. These positions had previously been staffed by a separate headcount of 11 and 4 persons respectively, none of whom was transferred over. The function currently has a total of 13 positions of which 12 are dispatch and one is a call-back channel. In addition to the minimum headcount of 13 required to staff these positions, 2 or 3 people are scheduled to cover for breaks. When two relief people are available, Dispatchers are given two 10 minutes breaks and a 45 minutes lunch per shift. If three are available, those times are extended to 15 minutes per break and one hour for lunch.

## **Section B: Staffing Methods**

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Although HPD has requested its Human Resources group to post the open positions, and several employees have apparently encouraged known qualified personnel to apply, we understand that they were unable to find the open positions posted on the respective City of Houston websites. We have heard from some Telecommunicators that when known such personnel have applied, they have allegedly been steered to HEC and 9-1-1 / Police Telecommunicator roles. When an individual telecommunicator posted the openings on industry bulletin boards, she received responses that the advertised pay scale was below market or rates, which the respondents received elsewhere. Our review of an internal study prepared by HPD management at the Center of comparative rates across five major Texas cities indicated that Houston's starting pay of \$11.83 per hour is the lowest. It ranges from \$0.82 to \$3.09 or from 6% to 21% *less* than the lowest and highest rates, respectively, paid by any of those other four cities. The fixed shift differentials paid by Austin, Fort Worth and San Antonio for evening and night shifts are more than twice those paid by Houston; Dallas' differential is 2% of employee's salary. **(Appendix M-1)**

### **Employee Turnover/Hiring**

Attrition has been compounded by the limited hiring of replacement individuals. However, as part of an effort to address the shortage of call-takers, at the time of this report, HEC hired 11 new call-takers to be cross-trained in both the initial 9-1-1 procedures and Police Telecommunicator procedures. Training of these new hires included 8 weeks of classroom training regarding policies and procedures, two weeks of initial 9-1-1 call-taking procedures and five weeks of Police Telecommunicator training. Once this portion of their training is completed, the new call-takers may be placed in different shifts on the call floor and be evaluated on a weekly basis for the next three months. The evaluation consists of monitoring of approximately 10 random calls per week. If necessary, these employees can receive an additional two weeks of remedial training in the appropriate areas.

## **Section C: Employee Morale and Environment**

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### **Section C: Employee Morale and Environment**

#### **Improvement Opportunity**

Based on focus group feedback which included all levels of employees, individual interviews to discuss process and procedures, results of the Employee Survey, and our process shadowing, employee morale within the Houston Emergency Center is low and is strained by the organizational structure challenges discussed earlier. This stems from a variety of factors including the following:

- A pervasive “Us versus Them” mentality,
- High incidence of Mandatory Overtime and Drafting,
- Persistent absenteeism,
- Scheduling of vacation time and use of sick time, and
- Deferred holidays.

#### **Summary Recommendations**

Below is a summary of recommendations for this section of the report. Recommendations in other sections of this report can also work to remediate this issue. Please see the “Recommendations” section of this report for a more detailed recommendations discussion.

- Address the organizational structure and staffing process discussed earlier.
- Ensure that the Employee Concerns Review Program (ECRP) functions as an effective mechanism for employee feedback (i.e. employee representatives are selected by the employees).
- We recommend that HEC management spend more “face time” with employees, including on the call center floor. Many focus group attendees observed that they do not know – and would not recognize – certain HEC management staff, including the Director.
- We recommend that, in accordance with both City and HEC policy, employees be allowed to take their deferred holiday time within 120 calendar days or be paid for these hours worked at the rate of time and a half and in the next available pay period after the holiday.
- As a result of this study and the level of employee participation, management should prepare and communicate to employees an action plan that acknowledges the issues

## **Section C: Employee Morale and Environment**

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and sets out the first steps to be taken. This should include a process to provide follow up to the plan and to measure achievement of action plan steps.

### **Discussion:**

#### **“Us versus Them” Mentality**

The co-existence of three distinct communities, each with its own entrenched traditions and practices, has precluded the creation of a common Emergency Response Center culture and has precipitated greater dysfunctionality. A pervasive air of divisiveness across the Emergency Response Center – of “us” and “them.”

The actual physical arrangement of the call center floor contributes to this departmentalization. The police functions are concentrated at the west side of the floor, the fire/EMS on the east side and the HEC personnel in the center.

During the focus groups, the following comments were made by attendees which illustrate the “us versus them” mentality:

- “Build two walls across the call floor” as a solution to the problems at the Emergency Response Center.
- Instead of a merger of three equals, the HEC management “presumed leadership of all functions and activities within the Center . . . is akin to a hostile takeover.”
- Both Fire/EMS and Police (civilian and uniformed personnel) claim “the other side received more favorable treatment from HEC.” Classified individuals conveyed that they have been both told and made to feel as though they are “temporary nuisances” whose concerns do not matter.
- Police Telecommunicators complained that they were “overlooked for promotions” and that when they did apply their “paperwork was lost by HEC management.” They further commented that “HEC management exercised favoritism and promoted pre-HEC 9-1-1 personnel” over them.
- Police Telecommunicators claimed that HEC has “favorites within 9-1-1 who report back on [them] to HEC management.”

Other factors contributing to the “us versus them” mentality are the different shift and break periods received by groups performing ostensibly similar functions. The civilian HPD Dispatchers (Senior Police Telecommunicators) work a total of 8½ hours including attending a roll call for thirty minutes prior to their shift whereas, previous to their moving to the Center, their entire shift, including break periods and lunch, was only 8 hours.

Depending on staffing, they receive either two breaks of 10-minutes and a 45-minute lunch, or two 15-minute breaks and an hour lunch; thirty minutes of the lunch period is

## **Section C: Employee Morale and Environment**

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considered unpaid. HEC employees only receive two 15-minute breaks and an unpaid 30-minute lunch during their 8½ hours shift. Although the Senior Police Telecommunicators consider the roll call to be unpaid, in practice, according to management, they are paid for the roll call but 30 minutes of their lunch is unpaid.

This “us and them” versus “we” perception was recently acerbated by HEC’s announcement that Dispatchers could no longer speak directly with Police Telecommunicators i.e. to get clarification of information in a dropped slip e.g. whether other specific data may have been provided. Instead the dispatchers were to request this via their (classified Police) supervisors who would communicate it to the 9-1-1 Police (civilian HEC) supervisors who in turn would contact the call taker. Although such practices reduce interruptions of call-takers during a subsequent call or avoid additional call processing times, they may significantly delay delivery of critical Priority 1 and 2 calls, when confirmation of such missing data are of critical importance e.g. address particulars, description of suspect, direction of travel, type of weapon or if present, etc.

The situation on the Fire/EMS side of the call floor is similar. Civilian Fire/EMS call-takers used to ask Classified Fire/EMS Dispatchers for occasional assistance on technical issues and classified personnel would also provide periodic feedback directly to call-takers to improve the type/quality of content captured. However, after the dispatchers were required to go through their respective supervisors to provide this communication, they also learned that when such feedback is provided it is allegedly used to evaluate the call-takers adversely (since shifts are based on EPE’s). As a result the HFD personnel are reluctant to provide positive criticism lest it hurt their civilian colleagues, thereby diminishing a medium for improving the quality of emergency response. In practice, in the event of a relevant emergency, the call-takers may often contact the adjacent HFD personnel for advice, but at the risk of personal (performance evaluation) repercussions.

The perception of inequitable treatment is not limited to civilian Telecommunicators but also extends to classified management personnel. It is the perception of many employees that HEC management is protective of information that other parties also need for their management purposes. For example, HEC allegedly retained for themselves all copies of some software user licenses purchased and provided by Greater Harris County, even though both HFD and HPD required access to the same programs. This impression further encompassed the perception of a strong controlling attitude, including by contract HEC employees, which ranged from use of conference rooms, turf disputes over allocations and use of assigned offices, lengthy delays in providing classified personnel the keys to their offices, to alleged overstepping of their authority by interference in, and dictation to classified management of how they should manage, those classified organizations’ activities.

## **Section C: Employee Morale and Environment**

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### **High Incidence of Mandatory Overtime and Drafting**

Employees are frequently required to work mandatory overtime, which is generally scheduled to begin immediately before or after their normal shift. Due to the nature of an emergency response call center, a certain number of personnel must staff the phones at any point in time to ensure that all calls are answered and acted upon promptly. Based on call statistics, this number varies based on the day of week and time of day and pre-determined minimum staffing requirements are established for various periods. However, there is frequently a shortage of available personnel owing to vacant positions on most shifts and extended numbers of employees being out on Family Medical Leave Act (FMLA) leave or scheduled vacations. As a result management must regularly schedule mandatory overtime in order to meet the minimum staffing needs. HEC management states that their employees are not scheduled for more than 20 hours maximum per week of mandatory overtime.

We understand that at times in the past, certain groups used to sign up voluntarily for such overtime spots with the remainder filled by personnel selected by management (supervisors). However, as the number of such volunteers declined, management resorted to a rotational mandatory overtime process; the next person in line may be assigned the next overtime shift. If people do not perform their assigned spot for some reason, they can be the first ones selected for the next one.

One of the most significant issues raised during the focus group sessions is the combination of both mandatory scheduled overtime and mandatory drafted overtime. Drafting arises when people on the subsequent shift “call out” i.e. call and tell the Center that they will not be in owing to sickness. The current shift supervisor often drafts people from the current shift to also work the subsequent shift. Call-takers conveyed that many HEC and civilian HPD employees are often not drafted until only a few minutes before their present shift concludes. This situation may arise because their fellow employees do not call out until the last minute or because the current supervisor either does not address the shortage on a timely manner or defers the drafting to the subsequent shift’s supervisor. Supervisor’s shifts do not necessarily directly correlate to call-taker shifts.

Supervisors generally first look for volunteers, through either the use of a “red book” in which employees sign up for potential needs for overtime, or through a general request to those currently on duty. In many instances, they do not have enough volunteers and are then forced to “draft” employees to work overtime. When employees are drafted to work overtime, it is considered mandatory and immediate. If an employee does not wish to work this immediate overtime, they can attempt to find another employee willing to take their overtime shift. Although HEC management’s policy is supposedly to allow personnel to go home to arrange child care and other related logistics and then return, individual employees have indicated that they have to do this quickly and via phone, not in person. If a person refuses to work the drafted overtime, employees communicated that it is reflected (adversely) in the determination of both their attendance and EPE scores which negatively impact the employee during the next annual shift selection process. Management stated that this does not affect attendance.

## **Section C: Employee Morale and Environment**

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Many of the groups in the focus group sessions commented that as many as 6-8 individuals are drafted on a daily basis and that in some instance, up to half of an entire shift has been drafted. They also raised the issue that individuals may already have worked mandatory scheduled overtime and are then also drafted as part of the same shift. Numerous examples were cited of employees working 16 hours straight, having 8 hours off and having to return for another shift of 8 hours (or more). This creates a tired and exhausted workforce and increases the risk of errors being made in call-taking when capturing critical information.

### **Persistent Absenteeism**

A number of the “call-outs” are allegedly by repeat absentees, as also indicated by the notation of prior suspensions against several persons on the most recent suspension listing. Historically, infractions do not appear to have been well documented or pursued including for the purpose of escalating to the level of indefinite suspension.

The lack of visible action taken against persistent non-attendees has both a demoralizing effect on conforming employees and encourages existing offenders – and other personnel - to continue such practices.

The drafting practice also has the effect of penalizing (implicitly the better attending) personnel by requiring them to work long and inconvenient hours.

### **Scheduling of Vacation Time/Use of Sick Time**

Each November/December, employees poll for vacation time for the upcoming year. Polling is based strictly on seniority. If available, employees are permitted to take up to 15 days off in a row during two six-month periods during the year. However, employees are not allowed to take any vacation outside of the twice a year period they received during the polling process.

Employees with up to 5 years of service accrue vacation at the rate of 3.04 hours biweekly (80/year). Employees that have completed five years of service with the city are credited each year with an additional eight working hours of vacation each year of past service in excess of five years, provided that no employee accrues in any one year more than 96 additional vacation hours.

One issue raised during the focus groups is that employees are not permitted to schedule a vacation if they don't have enough hours accrued for the vacation at the time of polling even if they are projected to accrue enough hours by the time of the vacation. This prevents them from being able to schedule time off to attend family events or other personnel commitments even when they ultimately have enough accrued time off by the date of the event. Many employees insinuated that this policy “forces” employees into

## **Section C: Employee Morale and Environment**

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“calling out” sick, in order to attend these type of events. This, in turn, creates a need to draft employees at the last minute to work overtime to cover for these individuals.

Conversely, we were informed of instances of employees who were previously approved for vacation who, due to excess usage of sick days which resulted in the use of accrued vacation time to cover the excess sick days, did not have enough remaining accrued vacation days at the time of their scheduled vacation. While City of Houston policy is that employees are not allowed to take vacation time in excess of what has been accrued, the employees would still take the previously scheduled vacation. When they returned to work, their paychecks were docked for this unearned vacation. It was communicated that some employees had taken unearned vacation to a large enough extent in which their subsequent paychecks reflected zero net pay.

### **Deferred Holidays**

One concern raised during the focus groups relates to the application of the deferred holiday policy. Houston Civil Service Code Chapter 14 Paragraph 168 (d)(1) states that “An employee who is scheduled to work on a holiday may be given a day off in lieu of the holiday or the employee shall receive half pay in addition to regular pay for the hours actually worked on the holiday. The department head shall determine whether the scheduled time worked on the holiday shall be paid in cash or in time off. Where time is paid in cash, it shall be paid in the pay period in which it is earned or a soon thereafter as possible. When time off is given, it must be granted and taken within one hundred (120) calendar days of the holiday.”

In addition, HEC Policy Number HEC 300-45, related to Vacation Policy states that *“When vacation absence is requested and approved, the absence during that period shall not be converted to any other type of authorized absence, such as absence without pay, or sick or injury leave.”*

Both HEC management and HEC employees relayed that due to the nature of the HEC being an emergency call center, employees are regularly scheduled to work on City holidays as the phones are required to be manned and many employees build up a number of accrued deferred holidays. However, they do not have any choice in when they take off their accrued deferred holidays and in many instances, the days have accrued far in excess of 120 calendar days. Instead, when employees take their scheduled vacations, any accrued deferred holiday time is first relieved before any vacation time is used. However, as earlier discussed in the section related to polling for vacation, employees are not allowed to take any vacation outside of the twice a year period they received during the polling process. While the time taken as deferred holiday in lieu of vacation days is not forfeited provided that employees have not accrued the maximum allowed 720 hours of vacation time, employees who desire to physically take both their annual vacation time and deferred holiday time off each year are unable to do so.

## **Section D: Employee Evaluation, Rewards and Retribution**

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### **Section D: Employee Evaluation, Rewards and Retribution**

#### **Improvement Opportunity**

The results of focus groups with all levels of employees, individual interviews to discuss process and procedures, and employee surveys indicate that the processes for employee evaluation and recognition need improvement.

#### **Summary Recommendations:**

Below is a summary of recommendations for this section of the report. Please see the “Recommendations” section of this report for a more detailed recommendations discussion.

- Since an employee’s attendance is already assigned equal weighting with seniority and EPE score for purposes of determining the order of employee shift bidding, we recommend that attendance not be included additionally as one of the mandatory factors used to calculate EPE scores. Current EPE methodology allows for an employee to be absent for up to 80 hours of vacation time, 480 hours of FMLA time, and 24 hours of sick time (a total of 584 hours) and still be rated ahead of an employee who misses only 64 hours of sick time.
  - We recommend the hiring of a consultant to analyze the EPE methodology and to establish an evaluation/scoring process that utilizes both objective and subjective factors to provide a consistent and equitable measure of employee performance.
  - In the interim, we recommend the productivity measure be split into two measures. One measure to calculate call efficiency per hour (utilizing the current methodology) and a second measure based on total time logged in during the year. Alternatively this could be achieved by adding bonus points to the productivity portion of an employee’s EPE based on total time logged in during the year. This should reward the employees who spend the most amount of time productively taking calls at the Center.
- We recommend that supervisors who are rotating away from the Center be required to provide EPE ratings for all employees they have supervised since the previous EPE period before they are allowed to begin their new assignment.
- We recommend that the duties of the Employee Relations Manager do not include administering disciplinary actions, including employee suspensions.
- We recommend that management institute a visible rewards program to publicly recognize employees who have gone “above and beyond” or excelled in some noteworthy capacity.

## **Section D: Employee Evaluation, Rewards and Retribution**

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- The City should evaluate, and improve as necessary, the current starting pay offered to new Telecommunicators, especially Police Dispatchers, relative to the equivalent compensation package offered by other major cities in Texas.
- We recommend that management implement the best practice employed by many call centers of placing pictures of employees on a common notice board when they are recognized for various achievements e.g. employee of the month.
- We recommend that all civilian employees at the Center be held to the same measurement standards and conditions.
- We recommend that HPD specifically determine whether its civilian HPD employees are to be held to the same rules and regulations, and receive the same benefits, as HEC employees or as other HPD civilian employees.

### **Discussion:**

#### **Employee Performance Evaluation (EPE)**

As part of the annual feedback process, employees receive an EPE each year. In the past, annual EPE's were provided based on an employee's original hire date. Beginning in 2004, the City began providing EPE's for all employees based on an April 1<sup>st</sup> to March 31<sup>st</sup> performance year. Part of the rationale behind this was to provide an objective basis for determining merit increases. EPE are broken into multiple sections including Job Duties, Performance Mandatory Factors, and Performance Optional Factors. Several issues were noted with regard to EPE's:

- One of the criteria used included in the Mandatory Factors portion of the EPE is based on attendance. While approved FMLA and scheduled vacations do not negatively impact score, unscheduled absences (sick hours) are counted against employees in the calculation of the attendance portion of their EPE score. As discussed earlier, shift bidding is based on the combination of seniority, a process that equally weights seniority, EPE scores, and prior year attendance. Therefore, attendance has a multiple effect on the shift bidding process as it is counted both on its own and as part of the EPE score.
- Another mandatory factor including in determining EPE score is Productivity. For purposes of determining EPE score, the productivity formula used to calculate "Average Calls Per Hour" is "Calls Answered" divided by "Total Hours." "Total Hours" is defined as total "Log-In Time" plus "Absent Log-in Time." "Absent Log-in Time" is defined as "Required Log-In Hours Per Day" (defined as 6 hours and 45 minutes) multiplied by the total of sick days and unscheduled time off. The following rating scale drives their EPE score for this area:

**Section D: Employee Evaluation, Rewards and Retribution**

EPE Rating Scale					
Rating Scale	Outstanding (5)	Strong (4)	Effective (3)	Needs Improvement (2)	Unacceptable (1)
Day and Day Swing	30 +	25 – 29	20 – 24	15 – 19	14 or less
Evening and Night Swing	33 +	28 - 32	23 – 27	18 – 22	17 or less
Nights	27 +	22 – 26	17 – 21	12 – 16	11 or less

While City policy provides for employees to accrue 64 hours of sick time each year, only the first 24 hours of excused (defined as having a doctor’s note) sick time is excluded from the calculation of “Absent Log-In Time.” In addition, approved FMLA time is also excluded from the calculation of “Absent Log-In Time.”

Productivity factors used in the EPE process are improperly skewed based on the inclusion of sick days in the above formula. The following example demonstrates the effect of this:

Take three employees, assume each is scheduled for 2,080 hours a year, assume no overtime is scheduled, and while at the Center, each is logged in 100% of the required 6 hours and 45 minutes per shift and each answers an average of exactly 30 calls per hour while on shift:

Example														
Employee	Sched. Hours	OT Hours	Excused				FMLA Hours	Shifts included for EPE	Shifts Worked	Log-in time per shift	Annual Log-in Hours	Annual Calls Answered	Average	Score
			Vac. Hours	Sick Hours	Sick Hours	Sick Hours							Calls per Hour for EPE	per Rating
Emp. A	2,080	200	80	-	-	-	275	275	6 hr 45 m	1,856.25	55,688	30.00	5	
Emp. B	2,080	100	80	-	-	480	203	203	6 hr 45 m	1,366.88	41,006	30.00	5	
Emp. C	2,080	200	-	24	40	-	282	277	6 hr 45 m	1,903.50	56,093	29.47	4	

In this example, while all three employees were equally productive during each shift they were present at the Center, Employee’s A and B are rated higher than Employee C, even though Employee C has answered more calls during the year than either Employee A or B. Employees have conveyed that they are unfairly penalized for usage of the full 64 hours of sick time that the City provides them each year.

- EPE ratings are often given by supervisors, which allegedly do not possess sufficient knowledge of employees’ work performance. For example, the HPD officers who rate the dispatchers rotate away from the Emergency Response Center after completing a one-year rotation. In many instances, the new supervisor has only been at the Emergency Response Center a short time when

## **Section D: Employee Evaluation, Rewards and Retribution**

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they are required to complete the EPE. Thus, employees are rated by someone other than who supervised them for the majority of the year. This cycle is repeated year after year. Both employees and supervisors relayed that supervisors simply review the previous year's EPE, and unless there are specific reprimands included in an employee's file, simply give a similar rating to the previous year.

### **Compensation/Rewards**

As previously noted in the Employee Morale and Environment sections, several anomalies exist in the shifts worked and the ways various groups are compensated, which generated complaints over inequitable treatment. The work conditions can vary considerably from team to team. Issues raised by focus group attendees include the following:

- City employees were promised a 3% merit raise, however, HEC personnel reported not receiving this merit increase.
- The HEC pay scale is not reflective of variances in responsibilities. Historically, call-takers were considered to have less responsibility compared to dispatching which some personnel still consider to be a more difficult job.
- Work hour requirements for the three teams in the Center vary and specific hours of work for HPD civilian personnel (i.e. they work only an 8 hour day including 30 minutes paid lunch). Civilian and classified HPD personnel vary from those working directly for the Police Department.
- A small compensation differential exists for HEC bilingual speakers. However, due to the limited number of bilingual call-takers currently available, they are more limited than their peers in their vacation, shift, and days-off choices, as at least one is supposed to be on each respective shift. (See also earlier discussion regarding language line expenses.) Again, this creates morale issues when personnel perceive inadequate compensation for additional scheduling restrictions.
- Although the HPD and HEC organizations have established break durations and quantity (generally two 15 minutes breaks, plus 30 minutes for lunch) during their shift, we noted that HFD does not have such predetermined amounts of break time. Rather, three additional employees are assigned during each 13 hours and twenty minutes shift to provide breaks for the other several classified employees, primarily in six key positions. Since their call (dispatching) activity tends to be more sporadic than other groups on the Public Safety Answering Point (PSAP) floor, we observed that they experienced longer quiet periods than other groups. This affords them further downtime in addition to their scheduled breaks.

## **Section D: Employee Evaluation, Rewards and Retribution**

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### **Amenities – Break Room /Quiet Areas**

Employees are provided with a break room adjacent to the PSAP floor and equipped with refrigerators, microwave, coffee pot, two TVs and several seating areas. However, although employees have expressed appreciation for these facilities, they also raised a number of related concerns, which although potentially minor individually, collectively have contributed adversely to employee morale. These include claims that:

- Their food is stolen from the refrigerators (implicitly by colleagues) or thrown away without warning when they are cleaned out.
- The two microwaves are not adequate to serve the number of employees in the Center who may be at lunch concurrently.
- The drink machines provided are invariably out of specific drinks (although management noted that they are refilled regularly by the vendor).
- The classified HFD personnel have their own separate break room, which can be used for decompression after any particularly stressful calls. We heard from several HEC employees of instances when they had talked a caller out of committing suicide or heard a baby die during their call, but did not have a similar quiet room in which to compose himself/herself.

### **Disciplinary Action**

As of March 18, 2005, per management's records, there are 21 HEC employees (which represents approximately 10% of the total workforce of 217- based on survey count) on some form of suspension for reasons ranging from attendance, punctuality, insubordination, less than effective EPE's, failing to work overtime, failure to report, rude to a citizen, sleeping on duty, and using an emergency line to make personal calls. This is a significant percentage of employees to receive suspension during the same annual period and contributes to the staffing and overtime issues present at the Center.

Per HEC policy, the purpose of disciplinary procedure is as follows:

1. Inform employees of conduct or performance that is considered to be below standard.
2. Give employees fair notice and counseling so that expectations are understood.
3. Provide supervisors with guidelines for corrective action.
4. Provide appropriate documentation in the employee's personnel record.

Counseling is generally performed before initiating any disciplinary actions. However, it is the policy of the HEC to follow a course of progressive discipline as appropriate when

## **Section D: Employee Evaluation, Rewards and Retribution**

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an employee violates Department and/or City of Houston rules, regulations, and policies or acts in an unethical or inappropriate manner or fails to satisfactorily perform job duties. A typical progression is as follows:

1. Written reprimand
2. Suspension (up to 15 days)
3. Indefinite suspension

### **Employee Relations Manager – Conflict of Interest**

One of the benefits provided to HEC employees is the ability to discuss employment-related issues with the Employee Relations Manager. This includes issues between employees and other employees and grievances with management. Part of the functional responsibility of this position is to act as an independent liaison between employees and management. In addition, this same Employee Relations Manager is also responsible for administering any necessary employee discipline procedures.

During the focus group sessions, it was repeatedly stated that the “employee representative” was hand selected by HEC management and does not really represent employee interests. Employees repeatedly communicated this inherent conflict of interest in that issues regarding specific management individuals or policy that they might discuss in a counseling session are later perceived to be used against them in the written reprimand and suspension process. The perception of a biased perspective leaves the employees feeling as though they have no one to truly represent their interests.

Employees further communicated that they feel intimidated by the Employee Relations Manager, and that while the individual claims to be there for employees, he always sides with management and does not appear to be even impartial to their concerns.

## **Section E: Analysis of Call Handling Activities and Staffing Levels**

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### **Section E: Analysis of Call Handling Activities and Staffing Levels**

#### **Improvement Opportunity**

Our analysis of call handling activities and staffing levels indicated several opportunities to improve the effectiveness and efficiency of the Center's ability to deliver the appropriate emergency response to each citizen's call.

#### **Summary Recommendations**

Below is a summary of recommendations for this section of the report. Please see the "Recommendations" section of this report for a more detailed recommendations discussion.

- HPD management should consider relocating the Teleserve function to the Center from its current off-site location to leverage economies of scale and drive efficiencies. This could drive potential savings of approximately \$416,000 per annum, including benefits.
- We recommend that realistic and achievable long-term direct call processing ("DCP") and post call processing ("PCP") goals be established which drive reduced call-handling times without sacrificing the integrity (completeness and accuracy) of the information collected. The viability of and adherence to such goals should be validated by close and frequent call monitoring by supervisors and remedial Telecommunicator training, as warranted.
- Although HEC overtime payroll savings may also be achievable in part through reduced call handling times, we recommend that management's immediate objective be to supplement its staff. In addition, we recommend that management also closely monitor the actual time spent on the phone and either on a call or available to answer a call. We noticed considerable variation in the total time during shifts which different individuals were available versus away from their console.
- We recommend that HEC management consider assigning a number of Senior Telecommunicators within the system on each shift to handle both Fire/EMS and, during lulls in Fire/EMS calls, any Police call overflows. Having some of these call handlers secondarily coded for Police calls should improve Police (emergency 9-1-1) call handling especially during sudden peaks. This should generate estimated annualized savings including burden of approximately \$200,000 to \$400,000. **(Appendix D-17)**
- We recommend that the Telecommunicators freed up through improved call handling times and cross utilization be used to alleviate existing staffing shortages, on either the Fire/EMS or the Police side.

## **Section E: Analysis of Call Handling Activities and Staffing Levels**

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- We recommend that call handling time be evaluated within the context of total response time, i.e. from receipt of the 9-1-1 Call until the first respondent arrives on the scene. While we agree that considerable attention should be paid to minimizing call-handling time, management's primary focus should be to ensure that the completeness and accuracy of the related information gathered is not compromised.
- We recommend that HEC management establish an automated self-service interactive voice response mechanism (IVR) to handle the 10-digit Police Calls. These calls currently constitute as much as 45% of all Police calls handled (**Appendix D-1**). This is estimated to generate potential payroll savings of between \$1 million and \$2.1 million per annum. (**Appendix D-18**)
- Although Fire/EMS 10 digits call volumes are significantly lower than Police call volumes, we recommend that management also consider managing them via a similar IVR as Police 10 Digits calls. If implemented, this could generate additional estimated savings of \$200,000 per annum. (**Appendix D-18**)
- We recommend that management increase the number of bilingual Spanish-speaking Telecommunicators and Senior Telecommunicators who interact directly with the public. We suggest that management both reclassify and deploy as bilingual any eligible current Spanish-speaking Telecommunicators as well as actively recruiting bilingual Spanish speakers for all positions. This should generate estimated annual savings of approximately \$375,000 from avoidance of language line expenses. (**Appendix L-1**)
- We recommend that dispatchers assign Priority Code 3 and 4 directly to specific patrol units instead of the current practice of allowing officers to volunteer to dispatched incidences. To assist the call center dispatchers, we recommend that HPD prepare a schedule of the expected time required in the field to resolve each type of call to identify which officers may be available soonest. We further recommend that HPD management consider monitoring the individual officers' general adherence to such time frames in order to help ensure officer availability. Dispatchers and classified HPD shift supervisors in the field should also monitor unit availability to ensure that these calls are answered in the sequence received and on a timely basis.
- Although Police patrol unit strength and citywide allocation are not within the scope of this engagement, an apparent shortage of officers are available to respond on a timely basis to other than Code 1 and Code 2 calls. We recommend that the City conduct an independent review of this issue to determine potential improvements which address faster, cost effective responsiveness to those incidents assigned lower priority but which still constitute significant and legitimate citizen emergencies.

## Recommendations

### Discussion:

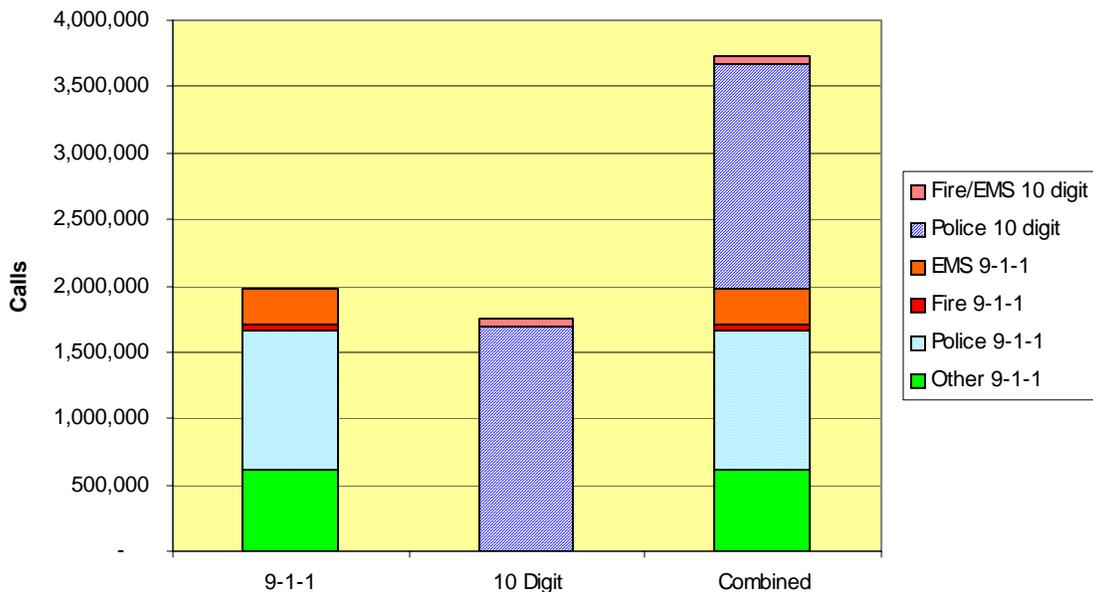
We reviewed call volume and handling data provided by HEC and supplemented by dispatch data from HFD and HPD.

### Call Volumes

Two sources of calls exist from citizens for emergency assistance: 9-1-1 and separate 10-digit numbers for Fire/EMS and Police respectively. Data is not readily available to indicate what respective percentage of 9-1-1 and 10-digit calls result in services being dispatched.

10-digit calls accounted for 47% of the total calls answered in 2004 and Other 9-1-1 Calls (each addressed in more detail later) constituted 16%.

**Constituents of Total 2004 Houston Emergency Center Call Volumes**



### 2004 Call Volumes

	9-1-1	%	10 Digit	Combined	%
Other 9-1-1	609,872	31%	-	609,872	16%
Police 9-1-1	1,048,632	53%	-	1,048,632	28%
Fire 9-1-1	56,199	3%	-	56,199	2%
EMS 9-1-1	266,171	13%	-	266,171	7%
Police 10 digit	-	-	1,690,066	1,690,066	45%
Fire/EMS 10 digit	-	-	62,350	62,350	2%
<b>Total number of calls</b>	<b>1,980,874</b>	<b>100%</b>	<b>1,752,416</b>	<b>3,733,290</b>	<b>100%</b>

See also **Appendix D-1 to D-10.**

## **Section E: Analysis of Call Handling Activities and Staffing Levels**

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### **End-to-End Emergency Response Delivery**

The call flow within the Center is shown in **Appendix G: 9-1-1 Call Flows Flowchart**. The end-to-end response encompasses both this processing of the calls within the Center, including their dispatching to the field, and the time taken by those responding field units to arrive on the scene of the event.

Most requests for Fire/EMS assistance generally constitute high priority threats to life or property; requests for Police response are assigned one of six degrees of priority (we focused on the top three for analysis purposes) by the Police Telecommunicator based on related HPD directions. End-to-end response times – from call receipt at the Center to arrival of a response unit on the scene - for the respective activities averaged:

Calendar 2004

End-to-End Emergency Response Time by Key Functional Components

	<u>Police 1</u>	<u>Police 2</u>	<u>Police 3</u>	<u>Fire</u>	<u>EMS</u>
9-1-1 Answering & Routing	0.4	0.4	0.4	0.4	0.4
Information Capture	2.6	2.6	2.6	1.8	1.9
Unit Identification & Dispatch	1.1	3.1	17.7	0.5	0.4
Unit Travel Time	<u>3.8</u>	<u>6.3</u>	<u>7.7</u>	<u>4.5</u>	<u>8.0</u>
Total (Minutes)	7.9	12.4	28.4	7.2	10.7

**(See Appendix E-1)**

In some critical situations when EMS response is required and a fire station with an available medic crew was located closer to the scene, the Fire/EMS Dispatchers send EMT trained personnel on fire equipment. In such circumstances during 2004, this reduced the average citywide travel time from 8.0 minutes to 6.45 minutes and total response time to approximately 9.25 minutes.

The total time to respond to an emergency call is comprised of four key segments performed by the respective functional groups:

1. 9-1-1 Answering & Routing: the initial call receipt, answering and identification of the type of emergency response required (Fire/EMS, or Police, and occasionally a combination) performed by 9-1-1 Telecommunicators. Some emergency calls may also come in on 10-digit lines handled directly by other Telecommunicators;
2. Information Capture: the subsequent capturing of all pertinent information, performed by Police Telecommunicators and Senior (Fire/EMS) Telecommunicators. This consists of two elements: time spent on the phone with the citizen – Direct Call

## **Section E: Analysis of Call Handling Activities and Staffing Levels**

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Processing or DCP – and any additional time the call handler needs to complete entry of data into the CAD system – Post Call Processing or PCP;

3. Unit Identification & Dispatch: performed by the respective Classified HFD Dispatchers and Civilian HPD Dispatchers. This encompasses the queue delay which essentially is the wait time until a unit is available within a specific area and its dispatching, usually done automatically via the CAD system by Fire/EMS Dispatcher “gatekeeper” and then monitored by the personnel on individual mike positions, or done via the CAD and/or radio by Police Dispatchers.
4. Unit Travel Time: time from receipt of dispatch notification until arrival on the scene of the incident by the first respective response unit in the field.

The same individual may perform some of these distinct functions in the future as various personnel are cross-trained. For example, 11 recently hired and trained employees are taking 9-1-1 calls. If the calls are for Police, they are handling them directly.

As evidenced in the table above, except for Police Priority Code 1 calls when all elements are arguably critical, the single largest variable within the Center for end-to-end Police call response time is usually the Queue Delay Time – the time spent waiting by a Dispatcher for a unit to be available in the field. Despite the close focus sometimes on the total seconds taken to gather the citizen’s information, the largest single contributory factor to overall emergency response delivery time is the unit travel time within the field. This is at least equivalent to the total processing time in the Center on Police priority 1 and 2 calls and twice to three times the call processing time on Fire and EMS responses, when seconds can be critical.

### **Relative Contribution of Activities to Total End-to-End Response Time**

	<u>Police 1</u>	<u>Police 2</u>	<u>Police 3</u>	<u>Fire</u>	<u>EMS</u>
9-1-1 Answering & Routing	5%	3%	1%	5%	3%
Information Capture	33%	21%	9%	25%	18%
Unit Identification & Dispatch	14%	25%	62%	7%	4%
Unit Travel Time	48%	51%	27%	63%	75%

### **(See Appendix E-1)**

This reinforces the importance and the need – as stated by numerous classified personnel both in the Center and in the field – to emphasize accuracy and completeness of information gathering over speed. Insufficient or inaccurate data may actually place the responding unit personnel at personal risk as well as requiring greater time consuming follow up calls to the Telecommunicator or call backs to the initiating citizen.

## **Section E: Analysis of Call Handling Activities and Staffing Levels**

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### **9-1-1**

9-1-1 call volumes totaled 1,980,874 or an average of 165,073 per month during 2004, a 9.2% increase over 2003. 9-1-1 calls for the first three calendar months of 2005 averaged 160,096. The most significant changes have been in Police 9-1-1 and in Other 9-1-1 calls. Average monthly Police calls have declined from 2004 by 12% to from 87,386 to 76,545. Other 9-1-1 calls have increased by 14% from 50,823 to 58,089 driven by an unusual spike to 70,620 in March 2005. While EMS calls have remained fairly consistent running around 22,200 per month, Fire calls have decreased by 14% from 4,683 in 2004 to 4,022 in 2005. **(Appendix D-2 and D-6)**

Per HEC's statistics, the average call answering time for 9-1-1 calls (the time a citizen waits to be connected to a 9-1-1 Telecommunicator), has remained fairly constant at around 2 seconds or less and the subsequent processing time at between 19 and 21 seconds per call.

As noted in the 2004 Call Volumes table produced above, not all 9-1-1 calls are for Fire/EMS/Police emergencies; a significant percentage (31% in 2004) of 9-1-1 calls are "Other" – i.e. comprised of misdials and requests for information or assistance provided by other City departments or adjacent cities, and some of which may be better addressed via the 3-1-1 line process. Some calls do pertain to emergency response incidents outside the area supported by the City and are referred to neighboring emergency response services. Also mutual co-operation by the respective classified agencies exists directly, when needed. However, since average time to handle "Other 9-1-1" calls during 2004 was 21 seconds these calls constitute 31% of 9-1-1 calls but only 6% of total time spent handling all those calls. Although data are not readily available to determine how many "Other" calls are of an emergency versus informational nature, the non-emergency calls do consume some time otherwise available to answer more critical emergencies.

It is questionable how much the current 21 seconds handling time may be reduced; some minimum information is always required. The time could however be saved by reducing the calls altogether, through the use of a separate phone number to an automated self-help menu (a mechanism often referred to as an IVR).

- This could also require a related public services communications campaign (in multiple languages) directing citizens to use this alternative number – possibly as part of 3-1-1's functionality – for non-emergency, informational calls. The cost-benefits of such a City sponsored campaign would need to be evaluated;
- The same automated response mechanism could be deployed to handle these redirected 9-1-1 calls and 10-digit calls (see also the discussion of 10-digit calls later in this section.)

## **Section E: Analysis of Call Handling Activities and Staffing Levels**

### **Information Capture – Fire/EMS Senior Telecommunicators**

Fire/EMS calls are essentially categorized as either Fire or EMS depending on the nature of the event and primary response required. Some events require both Fire and EMS equipment to be dispatched and many fire events require several pieces of equipment to be dispatched as standard procedure. The Senior Telecommunicators follow a pre-determined set of scripted questions prompted by the CAD in order to capture the requisite information. Since the Telecommunicator may often stay on the line with a citizen during an EMS call, the handling of these runs longer than on Fire calls. During 2004 these were handled in 152 and 112 seconds respectively or a weighted average time of 145 seconds across all EMS and Fire calls combined.

Overall the Senior Telecommunicators calculated average call handling time in 2004, from call receipt to dropping the slip to dispatch, was marginally longer than in 2003. Although the call mix and the addition of some personnel during 2004 may impact the weighted average and such comparability, primarily the same Senior Telecommunicators spent an average time of 133 seconds to process calls in the first eight months of 2003, immediately prior to the function's transfer to the Center.

### **Information Capture - Police Telecommunicators**

HPD General Order 600-1 defines call priority designations as follows:

- Priority 1 – Potential threat to life or potential threat of serious bodily injury in progress
- Priority 2 – In-progress property crimes and/or threat to human welfare, urgent response
- Priority 3 – No known emergency exists but should be handled expediently
- Priority 4 – Require on-scene response by a field unit but response may be delayed
- Priority 5 – Teleserve-eligible incidents, no emergency equipment to be used
- Priority 6 – Activities, which originate with the officer rather than dispatcher

The relative distribution of calls by priority code is presented in **Appendix D-11**.

Call handling time, Direct Call Processing (“DCP”) and Post Call Processing (“PCP”), is generally consistent regardless of call priority as the same key information is required on all calls. The Police Telecommunicator assigns the call a priority in accordance with the listing supplied by HPD of specific types of situation and their classification.

Per the EPE plan provided by HEC management, Call Processing Time is defined as “determines emergency, process call and creates Event Form within approved standards (this includes DCP and PCP); 74.9 seconds or less = Outstanding; 75.0-80.9 = Strong; 81.0 – 90.9. = Acceptable; 91.0 – 120.9 = Needs Improvement; 121.0 or Higher =

## **Section E: Analysis of Call Handling Activities and Staffing Levels**

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Unacceptable (During training periods add an additional 30 seconds to the Acceptable rating).”

Based on this, the acceptable (neutral) call processing time is 81 - 90.9 seconds.

The EPE plan provided by HEC management also states that “Post Call Processing Time – Time on “Not Ready” for completion of Event Form after caller has released: 25.9 seconds or less = Outstanding; 26.0 – 29.9 = Strong; 30.0 – 45.9 = Acceptable; 46.0 – 80.0 = Needs Improvement; 81.1 or Higher = Unacceptable (During training periods add an additional 30 seconds to the Acceptable rating).”

Based on this, the acceptable (neutral) post call processing time is 30 - 45.9 seconds. Combined with the call processing time above, the total acceptable (neutral) processing time is 111 – 136.8 seconds. The median of this range is 123.9 seconds.

This closely approximates the 120 seconds average call processing time factor used by HEC management to calculate hourly staffing needs. HEC management calculates its staffing levels using the Government Table formula for a 120 seconds average call processing time.

We understand that the 120 seconds is based in part on the similar time taken by Senior Fire/EMS Telecommunicators to process their calls. However Police and Fire/EMS calls are not totally identical; they each focus on different specific information needs. Fire/EMS call handlers follow a specific script; Police call-takers are more free form owing to the greater variety of call situations. Virtually all Fire/EMS calls require the dispatch of some emergency response unit; many Police calls pertain to past or less immediate needs, as witnessed by the magnitude of Priority 3 and 4 calls versus 1 and 2.

Historically both the Police Telecommunicators and the Fire/EMS Senior Telecommunicators have taken much longer than 120 seconds to process calls; for timer period in 2003 immediately preceding the move to the Center, the Police Telecommunicators spent an average of 153 seconds to handle a call. (**Appendix D-13**) We are not aware of any significant improvements in their operating environment that should drive expectations of an almost 22% reduction. By comparison, as noted immediately above, during this same 2003 period, even the Senior Telecommunicators required a combined average of 133 seconds (**Appendix D-14**), or 11% greater than new goal for which they are now toted as the benchmark. In 2004, under the same current HEC management and by which time the function had been in the Center for several months, the Police Telecommunicators total handling times for the year averaged 155 seconds. The weighted average handling times for Fire/EMS in 2004 are 145 seconds. (**Appendix D-16**)

HEC uses a combination of standard shifts and swing shifts to provide coverage for peak call volume times; this is more efficient than only utilizing three regular shifts with more headcount per shift. We reviewed and mapped the hourly call distribution for February and March 2005; the peak period for calls occurs in the early evening (see

## **Section E: Analysis of Call Handling Activities and Staffing Levels**

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**Appendix D-12** for graphical presentation.) In conjunction with HEC management personnel, we calculated the number of physical and roster Police Telecommunicator personnel required to staff for the expected hourly call volumes. We then compared these to the combined number of personnel currently available, each hour, from both the regular shift and the respective overlapping swing shifts. Even using the targeted handling time of 120 seconds (two minutes) as used by HEC management, and which should actually require less headcount than if the calls were handled at the more likely and recent 155 seconds average rate, there is currently a headcount shortfall of several Telecommunicators during peak hours versus those required.

We also performed a similar exercise in conjunction with HEC management on the total personnel required to handle 10 digit calls or which could be saved if all such calls were handled automatically without direct initial interaction with a Telecommunicator. (This is discussed further in the subsequent section on 10-digit calls).

### **Duplicated Fire/EMS and Police Calls**

The Fire/EMS Senior Telecommunicators and Police Telecommunicators often receive and process several calls pertaining to the same event, for example automobile incidents. Owing to the distribution of calls and the number of Telecommunicators handling calls, these Telecommunicators may not identify duplications, but the Dispatchers catch them at point of dispatch. In 2004, approximately 5% and 16% respectively of Fire/EMS and Police calls sent for dispatching were not dispatched. Overall, only approximately 68% and 61% respectively of the total Fire/EMS and Police calls initially received resulted in units being dispatched. (**Appendices D-9 and D-10**)

Calendar 2004	Calls Received	Sent to Dispatch	% Sent	Dispatched	% of Sent	% of Rec'd
Fire/EMS	384,720	275,980	72%	261,900	95%	68%
Police	2,738,922	1,989,882	73%	1,668,000	84%	61%

### **Fire/EMS Dispatch**

The Fire/EMS data for call processing are captured slightly differently by HEC and HFD. HEC's data for the information capture phase commence when the call is transferred from a 9-1-1 operator to the Senior Telecommunicator and ends when the Senior Telecommunicator finishes the call, not when it drops to dispatch. (On EMS calls, a Telecommunicator may sometimes stay on the line until a unit reaches the scene.) HFD's time starts when the Senior Telecommunicator records the address in CAD and concludes when the Senior Telecommunicator drops the call to the dispatcher. The Queue Delay time is from the time the dispatcher receives the call until it is dispatched (via the CAD) to the responding station. HEC management estimates that it is usually approximately 20 seconds from the time that the Senior Telecommunicator receives the call until the address is recorded. In order to eliminate the impact of incidences when a Senior

## **Section E: Analysis of Call Handling Activities and Staffing Levels**

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Telecommunicator stays on line through arrival of unit, we compiled the total response times by adding these 20 seconds to the respective HFD data.

The Queue to Dispatch time improved during the same period by several seconds on the Fire calls and by a quarter of a minute on EMS calls. This function is performed by a classified HFD dispatcher at the gatekeeper console, who reviews the slips dropped by the civilian Senior Telecommunicators under HEC management and then dispatches them via the CAD system.

The most significant improvement in the total citywide average response time is the half a minute reduction on Fire calls and attributable to the average travel time for first responder fire equipment, which dropped from 4.9 minutes in 2003 to 4.5 minutes in 2004.

### **Police Dispatch – Including Impact of Unit Response in the Field**

The magnitude of citywide dispatch call volumes and the related response time are generally constant throughout the period reviewed, especially for Priority 1 and 2 calls.

No indication exists that the change to the HEC facility and system had any long-term impact on call dispatching performance. However, a considerable short time spike was present in both queue times and travel times in September to November 2003, immediately during and following the period of relocation to HEC and the introduction of the new / updated CAD system. This spike is attributed to learning curves associated with these two factors and an associated impact on the MDT units within police vehicles.

According to the monthly statistics posted by HPD personnel at the Center, call volumes for Priority 1 and 2 calls remained fairly steady from January 2003 through March 2005 period, in the area of 2,300 and of 13,000 to 14,000 respectively. Priority 3 call volumes show greater monthly fluctuation with as much 10% variation any month from the average of around 58,000 calls. Dispatch Queue Delay times – the time it takes to locate an available street unit to dispatch – have generally increased from January/February 2003 to January/February 2005. Citywide average Priority 1 call Queue Delay Time is up by a quarter (25%) – or approximately 12 seconds – in each month; but the delay on Priority 3 calls increased by 44% or 5.1 minutes in January 2005 and by 37% or 4.2 minutes in February 2005. **(Appendix E-7)**

(Time in Minutes)	Queue Time <u>Priority 1</u>	Queue Time <u>Priority 2</u>	Queue Time <u>Priority 3</u>
Jan-03	0.8	2.7	11.5
Jan-05	1.0	2.7	16.6
Increase	25%	0%	44%
Feb-03	0.8	2.7	11.3
Feb-05	1.0	2.9	15.5
Increase	25%	7%	37%

## **Section E: Analysis of Call Handling Activities and Staffing Levels**

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HPD management has previously investigated the increase in Priority 1 time, since this has been a consistent trend subsequent to the move to the Center; they determined that it is caused by additional keystrokes, which dispatchers now have to perform within the updated CAD process. This impact is less noticeable within the longer Code 2 calls.

HPD Dispatch's target is to dispatch all Priority 1 calls within 1 minute of the slip "dropping" from the Police Telecommunicators and all Priority 2 calls within 5 minutes. All individual master districts' averages were within these parameters in January and February 2005.

As should be expected, the Queue Delay Times account for an increased percentage of the total response time on the lower priority calls: from January 2003 through December 2004 Queue Delay accounted on average for 14% of the total response time for Priority 1 calls, 25% for Priority 2 calls, and 62% for Priority 3 calls. **(Appendix E-1)**

However, the increase in Priority 3 call Queue Delay Time during this period appears to be driven by fewer available officers on the street. We understand that in addition to attrition, the City lost several hundred officers in 2004 when these retired following changes in retirement policy.

Although such classification potentially covers a wide range of incidents and comparative urgency, we noted that Priority 3 calls are not necessarily answered (by units in a district) in the order received. On numerous different occasions while in the PSAP call floor, we invariably noticed a number of Priority 3 calls still in Queue Delay, of which a few were pending for over an hour, sometimes several hours. More recent Priority 3 calls should then clear first. This was more noticeable immediately prior to the regular shift change times of officers in the field; since immediately after the shift change, the number of outstanding Priority 3 calls usually dropped appreciably.

We understand that one of the primary factors driving this phenomenon is the discretion afforded officers in the field to "cherry pick" which call to answer. Dispatchers do allocate calls to specific units as they are shown to be available (from answering a previous call) or even while on break if a Priority 1 or 2 arises and no other units are shown as available. However, this does not preclude units from timing their return to availability and, using the MDT within the police vehicle, self-selecting a specific open call, as opposed to the longest one waiting. The monitoring of timely unit availability is best administered by the classified officers in the field assigned to such duty on each shift. This is especially so during busier periods when dispatchers are handling several districts and do not have time to pursue specific calls nor always have the knowledge to second guess how long a certain type of call should take. (There are no published guidelines on expected time required to clear specific types of events.)

## **Section E: Analysis of Call Handling Activities and Staffing Levels**

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### **Travel Time**

Citywide Travel Times by responding HPD units have generally remained constant both pre and post the transition to the Center, while the Queue Delay Times have increased slightly.

Although police unit performance on the street lies outside the immediate scope of our audit, it does have a significant impact on the overall delivery of emergency response services.

We noted that the responding police unit travel time increased during the September to November 2003 transition period. According to anecdotal information we received from various HPD officers who were on the street at that time, they were not provided with Mobile Data Terminal (MDT) or related training on the new codes and revisions to their (existing) CAD system. They allegedly did not even receive a user manual until a couple of weeks after the updated CAD's introduction. Initially, the new system sent all data – often over 10 pages – to the MDT making it difficult and time consuming for the responding officer to locate the pertinent details. This is supported by universally consistent absolute increases in travel time regardless of call priority and, once this content and format issue was resolved, a return to more normal travel times throughout 2004.

We also noted that certain infractions require an officer to take the perpetrator to the City jail in downtown Houston, e.g. for DWI offenses. Such action can take officers serving the outer lying districts of Houston out of commission for several hours. We did not directly notice any impact on overall responsiveness to individual Priority 1 and 2 calls; whenever we were on the call floor in the PSAP, these calls remained only briefly on the dispatch monitors before being dispatched to field units. However, the periodic shortage of officers within any given district may preclude more timely resolution of Priority 3 and Priority 4 calls; we noticed that occasionally calls of these priority types may remain unanswered for several hours.

Our analysis of HPD data which included the time required in the field to resolve different priority incidents, including related travel time, indicated an average duration of approximately one hour per event; this may not always include the associated administrative paperwork if done later. Given a normal eight hours shift, the total number of lower priority calls which can physically be addressed by each officer may be significantly limited, especially during periods of peak weekly and daily activity or inclement weather.

### **10 Digit Calls**

As noted earlier, Fire/EMS and Police 10 digit calls of approximately 62,000 and 1.7 million, respectively, constituted 2% and 45% of all calls received in 2004. (**Appendix D-1**). Although some of these calls do result in the dispatching of response units, data are

## **Section E: Analysis of Call Handling Activities and Staffing Levels**

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not available to quantify the number of 9-1-1 and 10 digit calls respectively which drove the overall total number of calls and units dispatched. Although the exact magnitude is again not precisely quantifiable, only a small fraction of those generated are believed to be Code 1 or 2 emergencies (the general expectation being that most people tend to call 9-1-1 in such circumstances rather than look up the 10 digit number).

Processing these 10 digits calls consumes considerable call handling resources. An alternative is to establish an IVR or interactive response mechanism on the 10 digit number i.e. callers would hear a suitably worded message and menu of options. For calls of an emergency nature, the selection of the respective option could transfer their calls directly into 9-1-1 or to a Police Telecommunicator or Senior (Fire/EMS) Telecommunicator if available. For calls that are more informational in nature, further menu selection options could either provide a pre-recorded message with instructions whom to call or possibly transfer the call directly to the appropriate recipient e.g. 3-1-1, city jail, etc.

As noted earlier, in conjunction with HEC management personnel, we calculated the number of physical and roster Telecommunicators required for the expected hourly call volumes, both including and excluding the 10 digits calls. For this exercise, we used the same standard government issued staffing matrix used by HEC management to quantify the numbers required at each activity level.

Our comparison of the current headcount that is required to handle all calls including 10 digits versus those required if an Interactive Voice Response (“IVR”) were used, indicates that an IVR should free up headcount of approximately 25 Police and two Fire/EMS call-takers. Since, we did not quantify the cost of an IVR, management should determine if the relatively low volume of 10 digit Fire/EMS calls received warrants the use of an IVR. However, assuming an average hourly rate with burden of \$19 (see **Appendix K-1**), a reduction in headcount of 25 Police Telecommunicators represents an annualized payroll savings of approximately \$988,000. In practice, since that group is currently understaffed and working overtime (for reasons discussed in more detail elsewhere in the report), in the short term the additional available headcount could potentially obviate some or all of that need, thus generating up to a further 50% in savings from the related 50% overtime pay rate premium now avoided

### **Foreign Language Calls**

Extensive use is made of the “language line” which provides for-fee interpreters to translate between the citizen and the Telecommunicator. Although there are a small number of bilingual, and primarily Spanish-speaking, call agents within the call center, our review of the 2004 language line expenses indicated that 98% of those calls and expenses were for Spanish. The next most frequently required language was Vietnamese, which accounted for only 788 calls in the year and \$5,544 or 1.4% of total expenses.

## **Section E: Analysis of Call Handling Activities and Staffing Levels**

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Actual call distribution fluctuates by time of day, week etc. However, the 55,125 Spanish calls handled in conjunction with the language line represent an average volume of 6 calls per hour. If these calls were to require the 120 seconds (used by HEC management as its targeted 2005 standard) they could be handled by as few as one additional bilingual Telecommunicator per hour or an additional roster headcount across all three shifts of 5. Bilingual Spanish-speaking Telecommunicators are paid an additional \$75 per month, relatively consistent with rates paid by agencies in other major Texas Cities, according to a related analysis performed by HPD. **(Appendix M-1)**

The annual cost to add one speaker per shift to a specific function's roster should therefore cost approximately \$5,000. This appears prudent, given the minimal premium involved, to hire (or if already available within current ranks, to compensate and assign) several Spanish-speaking Telecommunicators per shift for both the 9-1-1/Police Telecommunicator and Fire/EMS Senior Telecommunicator functions. Hiring additional and cross-training existing bilingual Spanish speakers to handle such calls should improve customer service and substantially reduce external language line expenses, potentially saving around \$375,000 per annum. **(See Appendix L-1)**

## **Section F: Operational Management**

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### **Section F: Operational Management**

#### **Improvement Opportunity**

Based on our focus groups, individual interviews, process shadowing and employee survey results, operational management lacks consistency and responsiveness to employees.

#### **Summary Recommendations**

Below is a summary of recommendations for this section of the report. Please see the “Recommendations” section of this report for a more detailed recommendations discussion.

- We recommend that one set of common standardized policies be established for all Center operations and personnel with consistent application and enforcement.
- We also recommend that management ensure the appearance as well as the reality of equal and equitable treatment of all personnel.
- We recommend that in order to foster a stronger sense of a single united team, we recommend that HEC management consider requiring management and especially back office HEC personnel to adopt a similar dress code, i.e. HEC uniform, to that required of personnel on the call center floor.
- We recommend that a light or flag be placed on each console position for use when an agent requires assistance from a Liaison Specialist.
- We recommend that Dispatchers be permitted to contact their Police and Fire/EMS Telecommunicator colleagues directly to confirm critical information, especially on high priority calls.
- We recommend that as part of their training, Telecommunicators spend some time in the field with respective HPD and HFD emergency responders. This should enable the Telecommunicators to gain a better appreciation of the anticipated and actual conditions in the field compared to the information provided by the call center dispatchers.

#### **Discussion:**

Operational management issues can be grouped into several categories as follows:

- Control
- Method/Tone of Communication

## **Section F: Operational Management**

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- Responsiveness to Employees
- Consistency
- Training
- Additional Employee Concerns

### **Control**

Several issues have been raised regarding perceived levels of authority or jurisdiction as to who has ultimate responsibility and control for emergency operations. While agreement exists that the Police or Fire/EMS departments have ultimate responsibility to arrive on the scene and assist citizens with emergency response and public safety issues, these groups are dependent on receiving proper dispatch instructions. Likewise, the respective dispatchers are dependant on the call-takers providing them both accurate and timely information. An analogy can be made that while the citizens are the ultimate clients of everyone involved in emergency response, the respective responding officer and firemen are the direct client of the dispatch and call-taking functions. Both HPD and HFD expressed the following concerns:

- Through their quality assurance process (which includes monitoring of recorded calls) and due to specific instances in which they feel that the dispatch and call-taking process could have been more appropriately handled (incorrect or insufficient information obtained/communicated, timeliness of the dropping of the call-slip), they often have the desire to communicate training or procedural modifications to the call-takers to improve the quality of emergency response service being provided to the citizens. Their goal is simply to improve the level of service and not to provide disciplinary or punitive measures. HPD and HFD personnel are restricted in their ability to provide constructive feedback directly with call-takers both on the floor and during the roll-call process. Instead, they are instructed to only report up to their respective supervisors who in turn may communicate these issues to HEC supervisors who can then elect whether or not to pass these communications down to the call-takers.
- In some instances, police officers have a need to request additional detail or clarify information appearing on their MDT before arriving at the scene. Current procedures do not allow them to communicate directly with the call-takers (the only people who spoke directly with the citizen calling in to 9-1-1) to validate what the officers determine to be critical information before arriving on the scene.
- A common situation at the Center is a combination call. This occurs when both Fire/EMS and Police are needed to respond to an event. The two groups have different but equally valid objectives. The primary focus of Fire/EMS is to assist the injured parties and limit further damage whereas the primary focus of HPD is to apprehend the perpetrator as well as maintain public safety. HFD has

## **Section F: Operational Management**

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communicated that the industry standard for fire departments across the country is that once location and a general understanding of an event is determined, it is a best practice to begin the dispatch process. Speed is weighted higher than completeness. Conversely, HPD prefers a certain level of detail to be obtained (i.e. description of the person of record, license plate number etc.) before wanting to dispatch.

Currently, for perceived efficiency reasons, while a call-taker may have obtained enough information to provide to HFD to dispatch, they are required to also obtain the information necessary for HPD before dropping the call slip. When the call-taker drops an initial slip to HFD for dispatch they have ended their Direct Call Processing (DCP) time and must now spend time in Post Call Processing (PCP) to capture the additional information necessary to drop the slip to HPD. Spending additional time in PCP negatively impacts their employee evaluations.

Due to this inefficiency, the current procedure is that they must attempt to obtain the specific information requested for both HFD and HPD before simultaneously dropping the slip to both HFD and HPD. HFD believes this adversely impacts their response time and places the public at greater risk (e.g. person injured in a hit and run incident, major automobile accident).

- Both HFD and HPD have expressed that policy and procedural changes that affect their personnel on the streets are often made both without their approval and without being communicated to them with enough time to train their personnel on how to implement the changes.

One example is that in response to call-takers being overwhelmed by HPD officers calling in with officer initiated requests for case or incident numbers, a change was made in that once a call-taker identified this type of request, they were to transfer the officer to an automated recording that informed the officer that they were to obtain this information elsewhere. Officers were frustrated by this change and while they could contact their own substations to request a case number, individuals at the substations were unprepared to respond to these requests.

HPD personnel at the Center expressed that one - they disagreed with this change in policy and two - even if the change had to be implemented, they did not receive any lead-time notification to appropriately train their people to handle this change in procedure.

Following are additional comments concerning operational management based on information obtained during several focus group sessions, individual interviews, and derived from the employee survey results (**Appendix B-1**)

## **Section F: Operational Management**

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### **Method/Tone of Communication**

- Most official communication between management and employees takes place during daily roll calls prior to each respective shift. Additional communications are provided via memos from management to employees.
- Communications from supervisors and management tend to be punitive and castigatory and rarely provide any “kudos” or recognition for a job well done.
- Ineffective Management techniques, including essentially "management by intimidation". Supervisors tend to manage by intimidation and the threat of written reprimand rather than by communication and inclusiveness.
- Lack of a "team environment" - management does not promote a "team" atmosphere.
- Management is out of touch with its personnel - many employees have never been formerly introduced to the HEC Director and Assistant Director.

### **Responsiveness to Employees**

- Employees communicated that management tends to be unresponsive to their questions and concerns. Employees noted that when attempting to set up direct face-to-face meetings with upper management, supervisors or administrative personnel screen their issues first. In instances in which management has attempted to address employee concerns through memos, the responses are often curt, vague and do not fully address employees' questions.
- Lack of management concern for employees' personal issues. We heard isolated complaints that some personnel were required to return to work while attending to sick or dying family members.
- Communications with management - employees do not feel that they can discuss problems/issues with supervisors and/or management without fear of retaliation.
- On an administrative level, HPD and HFD have expressed frustration that HEC management is slow and unresponsive in providing requested statistical call information and budget information.

### **Consistency**

- Discrepancies exist between communications from upper management to employees and those from supervisors.

## **Section F: Operational Management**

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### **Training**

- Employees communicated that they received minimal training on the new CAD system prior to formation of the Center. Some respondents noted that the features of the actual system also differed from the training they had received.
- Employees felt that the user manuals associated with the new CAD system were not provided on a timely basis and that while employees had to sign stating that they had read the user manuals, management did not give them enough time to actually perform this task.

### **Additional Employee Concerns**

While arguably frivolous, these issues, combined with much more serious issues, have contributed to the “us” versus “them” mentality between management, employees and, in some cases, between the individual cultures within the Center. These include inconsistent application and enforcement of ambiguous, and occasionally conflicting, work rules including a fixation on issues perceived as less significant by employees than they are by management.

HEC management is perceived by focus group attendees as strictly enforcing dress code standards on their employees while HFD and HPD are perceived to be more lax in enforcing dress code standards, especially over the HPD civilian employees (who ironically, despite a return to being HPD employees, are also required to wear the HEC uniform). Examples provided include employees being allowed to have their shirts tucked in or out and to have occasional casual dress days for special events. HEC employees are not granted this same latitude. Although it is mandatory for civilian employees on the call center floor to wear the HEC uniform, no similar requirement is imposed on the back office personnel or management.

HEC management also focuses on strict policies preventing certain items being allowed on the floor of the call center. Per the Police Telecommunicator Operations and Training Manual, food is strictly prohibited and beverages are allowed only “in the approved spill-proof containers. No other container type is approved or allowed.” Also, “positions and work areas are to be clean and free of clutter (magazines, books, newspapers, sales brochures, and debris).” In addition, “personal radios, personal electronics, camera devices, CD or DVD players, televisions, or electronic games are prohibited in the Call Center or at your position.” Based on discussions in the focus group and several walks through the call center on varying days and times, these policies are primarily enforced in the HEC portion of the floor. In other sections, we saw all types of drink containers, call-takers reading newspapers and/or playing solitaire on their computers, and on the east side of the floor, we saw a small television on and propped up on a chair. As the call center is an open area (individuals on one side of the room can easily see individuals on the other side of the room), these blatant differences in rules or enforcement of these rules are extremely demoralizing to the employees forced to comply with the regulations.

## **Section F: Operational Management**

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Other Center personnel, including management, do not appear to be subject to the same strict application of these policies as are the Telecommunicators. We noticed a preponderance of TVs or screens throughout the Center. There is one in most back offices and several adjacent workstations. We observed that several of these are frequently on throughout the workday and tuned to non City related programming. These are potentially distracting to employees (including during their meetings with our audit team and when occasionally loud volumes were not even adjusted). Similarly, in addition to displaying call function specific statistics, the three banks of screens in the PSAP floor regularly display daytime soap operas, talk shows, etc. Should employees or management need to be kept apprised of contemporaneous City Council activities on a timely basis, a more efficient method may be needed for the Center's media-relations officer to consolidate any such information on a periodic basis for distribution to these audiences.

During the focus groups, many employees complained that the chairs, while expensive, were not designed to accommodate all body sizes and that while some chairs were purchased that accommodate heavier individuals, the allocation and replacement of broken chairs is not equitable or sufficient. Due to fixed asset tags denoting which chairs belong to each group, employees are not supposed to swap chairs with the other groups.

Employees also noted that the location of their personal lockers is not in close proximity to the call center floor. As employees are allowed only strict break periods of no more than 15 minutes, and minimal restroom breaks, if need arises, they are often forced to spend the majority of their break time traveling to and from their lockers rather than attending to their personal business.

Another issue relates to the assignment of parking spaces to HFD, HPD and HEC management. HPD and HFD management pointed out that while minor, all of the HEC management staff were assigned parking spaces in close proximity to the entrance to the building while both HPD and HFD were assigned only a handful of parking spaces much further from the entrance.

Other issues can be categorized more as annoyances including access to conference rooms, distribution of sufficient office space as well as obtaining keys to offices in a timely manner.

On several occasions, we noted a lack of respect by personnel within one group towards those in another and learned that this even extended to the disrespectful way some, including certain classified personnel, treat the janitorial staff. We also learned of abuses of physical property ranging from an apparently isolated attempt to flood a ladies' bathroom to repeated scoring of walls and alleged damage to seats on the call center floor. Although these excesses are limited to a few individuals within any group, we also frequently noted a common misperception both within the Center and allegedly within the local media that the actions and comments of such individuals were representative of their peer group, or even the Center, as a whole.

## Section F: Operational Management

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Collectively, these various factors have precipitated an apparent lack of mutual respect, both between members of the three primary groups (HEC, HFD, and HPD) and even towards peers within ostensibly the same team. In some shifts, it has also created a “what’s in it for me” atmosphere rather than fostering an environment of teamwork.

### Employee Survey Results

As a part of our review of the Houston Emergency Center, we determined the need to conduct an anonymous and confidential employee survey for all levels of employees and classified personnel located at the Center. Our experience shows that if employees are afforded an opportunity to provide feedback concerning their work environment on an anonymous and confidential basis, they are more inclined to provide information that they would not normally provide for fear of retaliation or retribution.

The Employee survey was provided to all 397 identified employees at the Center during the daily roll-call sessions or through regular mail to home addresses if an employee was absent on the day(s) of survey distribution. Each employee, civilian and classified, was provided a copy of the survey, a cover letter signed by the HEC Director, HPD Chief, and HFD Chief, and a stamped, self-addressed return envelop. Employees were asked to mail their completed surveys directly to the survey company located in Alexandria, Virginia, in order to maintain confidentiality for the responders.

The survey contained no identifiable markings; however, in order to ascertain and obtain feedback according to “function” (e.g. 911 Telecommunicators, HEC Administration, etc.), we marked the returned envelopes according to the following divisions:

HEC A	911 Telecommunicators
HEC B	Police Telecommunicators
HEC C	Police Dispatchers
HEC D	HFD Dispatchers
HEC E	Fire/EMS Telecommunicators
HEC F	911/Police/Fire/EMS Supervisors
HEC G	HPD Classified Personnel
HEC H	HFD Classified Personnel
HEC I	HEC IT
HEC J	HEC Administration/Management

Of the 397 surveys distributed, 189 were returned, which resulted in an overall return rate of 48%. It is our experience and that of the survey company that the response rate of 48% by Center personnel is well above the average response rate of 25% to 30%.

## **Section F: Operational Management**

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This provides sufficient data to provide a high level of confidence in the survey results according to the survey company, Strategic Management Systems, Inc. Among the specific objectives of the survey are the following:

- Identify areas where special focus and attention should be provided in improving the overall compliance environment of the department.
- Establish a benchmark against which progress can be measured.
- Gather views from the perspective employees about the effectiveness of management.
- Measure perceptions and morale towards department management and leadership.
- Identify factors and issues affecting attitudes and morale including (a) delivery of quality services, (b) effectiveness of management, and (c) effectiveness of communication.

The survey instrument represents seven dimensions of employee perceptions, wherein each of the seven addresses a different compliance issue. The areas also referred to as “panels” included the following topics:

- (a) Personal Job Satisfaction;
- (b) Compliance with Laws and Regulations;
- (c) Quality of Services;
- (d) Employee Communications;
- (e) Management Practices;
- (f) Human Resources Practices; and
- (g) Financial Management

According to the survey company, a score of **3.00** is the point of neutrality for the survey. In our experience and that of the survey company, a mean score of **2.63**, below the mean of 3.00, should indicate an immediate concern for the Center.

The panel means range from 2.37 for Compliance with Laws and Regulations to a high of 3.11 for Financial Management as perceived by the Responders. The Center scored above the neutrality mark of 3.00 in only that one panel.

## Section F: Operational Management

Panel	Aggregate (n = 189)
Personal Job Satisfaction	2.47
Compliance with Laws and Regulations	2.37
Quality of Services	2.71
Employee Communications	2.57
Management Practices	2.52
Human Resources Practices	2.77
Financial Management	3.11
<b>Overall Mean</b>	<b>2.63</b>
<b>Return Rate</b>	<b>48%</b>

Additional analysis of the survey results by Division reveals higher scores from the management level respondents (e.g. Groups G, H, J). Of particular interest is the fact that the lowest score provided for an individual panel of questions by the HEC Administration group of 3.73 is still higher than the highest score (3.68) for a panel of questions provided by any other group within the Center. The different perception of the overall Center environment held by HEC management and by all other personnel at the Center, as evidenced by the survey results noted below, is indicative of the previously discussed “us versus them” mentality that permeates the Center.

Division	Name	Lowest Score	Highest Score	Overall Mean
HEC A	911 Telecommunicators	2.08	2.70	2.41
HEC B	Police Telecommunicators	1.71	2.89	2.15
HEC C	Police Dispatchers	1.91	3.01	2.29
HEC D	HFD Dispatchers	2.72	3.21	2.96
HEC E	Fire/EMS Telecommunicators	1.95	2.89	2.47
HEC F	911/Police/Fire/EMS Supervisors	2.21	2.85	2.53
HEC G	HPD Classified Personnel	2.46	3.68	3.03
HEC H	HFD Classified Personnel	3.22	3.68	3.52
HEC I	HEC IT	2.81	3.60	2.99
HEC J	HEC Administration	3.73	4.15	4.01
	Individual Low/High	1.71	4.15	
	Aggregate Low/High	2.37	3.11	2.63

The results of the employee survey provide an additional basis for some of the findings contained in this report. We recommend that the readers of the report study the survey results to better understand Center employee perceptions as outlined in the seven survey panels, and review the survey recommendations and comprehensive details of the employee survey findings. (**Appendix B-1**)

## **Section G: Information Technology and Support**

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### **Section G: Information Technology and Support**

#### **Improvement Opportunity**

Based on our focus groups, individual interviews, and employee survey results, we found that several issues are present with regard to the Information Technology and Support Group (IT) including the following:

- Lack of Unified Management Direction Regarding 24 hour 7 days a week On-call Functionality
- Need for 24 hour 7 days a week Help Desk
- Lack of Equipment
- Inefficient Use of Warranty and Spare Inventories
- Lack of Training
- Limited Career Path
- System Downtime – Perception and Reality
- CAD Downtime Workaround

#### **Summary Recommendations**

Below is a summary of recommendations for this section of the report. Please see the “Recommendations” section of this report for a more detailed recommendations discussion.

- The City should establish a 24 hour 7 days a week Help Desk on site at the Center.
- Management should ensure that the IT Department has the requisite equipment and technical training to support the Center systems.
- Management should evaluate the cost benefits of maintaining a City or vendor owned inventory of essential spares on site to reduce parts related downtime.
- The City should implement a service level agreement with vendors to provide for a readily available inventory of the most common and critical spare parts needed to maintain the IT equipment.
- IT Management should establish clear policies in several areas, including overtime compensation and preventative maintenance.

## **Section G: Information Technology and Support**

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- The City should consider establishing a single centralized IT office empowered with oversight and support responsibilities for all IT systems on which the City relies to deliver any emergency response. We recommend that a dedicated Chief Technology Officer be assigned to direct this consolidated office of IT support over all City Emergency Response Services.
- Management should evaluate the location and quality of mission critical infrastructure equipment to ensure there is appropriate back up and system redundancy.

### **Discussion:**

#### **Lack of Unified Management Direction Regarding 24 hour 7 days a week On-call Functionality**

Members of the IT group relayed that they are faced with inconsistent direction from management. They often receive updates through IT management one week informing them that certain issues are not critical and then receive directives from the respective HFD and HPD chiefs requesting that they work immediately to fix that problem. Often, these problems arise when individuals are in the role of the on-call specialist for that evening or weekend. When these inconsistent orders/requests occur, the on-call personnel attempt to reach IT management to either approve the overtime or clarify that this is not considered a critical need and can wait until normal working hours. However, they often have a difficult time reaching their IT management and are forced to make the overtime decision on the spot. We were informed, that in many instances, when the employee is eventually able to reach them, IT management does not subsequently approve the overtime. There is also inconsistency in what is deemed acceptable; overtime may not be approved one week, but considered acceptable the following week.

We learned that some IT issues are solved remotely by IT personnel by logging in from home. Individuals commented that although they usually receive overtime compensation when they physically drive to the Emergency Response Center to solve a problem, if they are able to solve the problems remotely, they encounter the overtime approval issue discussed above. However, even when solving problems remotely, it can still take them several hours in the middle of the night to solve the problem.

In addition to the overtime issues, the IT group communicated that in the past, the Citywide IT desk used to support the fire stations. Since the move to the Emergency Response Center, they are now asked to support the Fire Stations 24/7.

There is also a subtle difference between the HFD and HPD classified personnel's respective career paths, which impacts the magnitude of IT support required. Since HFD supervisors consider the move to the HEC a positive career move and could potentially

## **Section G: Information Technology and Support**

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remain there for several years, they are more motivated to learn the CAD system and so have helped IT with minor fixes. Conversely, owing to their one-year rotation at the Center, HPD supervisors do not have the same incentive to learn the CAD system.

One common observation made by personnel from both the HFD and HPD teams was that each felt the CAD system was designed more for the other's use and partially compromised its and their ability to perform their required functionality.

### **Need for 24 hour 7 days a week Help Desk**

Although the Center operates on a 24 hour 7 days a week basis, any after-hours response is currently, dependant on the functionality of a single cell phone provided to the individual on call. In some instances, the on-call individual is not expected to always be the specialist in the problem area, but to be a single point of contact to identify and inform the related subject area specialist. However, some personnel felt that they were not sufficiently trained on the systems to properly respond to requests. In addition, since there are so few personnel in the group with the technical expertise to respond to some requests, that these latter individuals are in constant "fear" of the phone ringing even when they are "off-duty". We heard that this makes it difficult to schedule family activities, which they may have to leave at limited notice. Many IT employees are effectively on call 24 x 7 which can result in premature employee "burn-out" as well as reduced morale.

The thin span of technical coverage also leaves the Center particularly susceptible to a sudden lack of requisite expertise arising from e.g. mass sickness or exodus of personnel.

The nature and mix of IT requests received and the requirement to maintain the Center fully operative 24 hour 7 days a week warrant a close investigation of establishing a more sophisticated 24 hours 7 day a week on-site help desk. This may be staffed by in-house personnel – which could require additional hires, by outsourcing to third parties, including existing vendors, or by a combination thereof.

### **Lack of Equipment**

The IT group relayed that they are short on the equipment needed to test and perform preventative maintenance on the CAD system. Their responsibilities also extend to various Fire and Police sites around the City. However, they only have limited tools and two repair vans to support these multiple responsibilities. Although Management considers the time that a particular job may take to complete, they do not always account for the driving time to and from the site. Due to Houston traffic, weather, and location, this time can often be considerable. Absent sufficient equipment, IT technicians are forced to spend additional time loading the van at the Center, driving to and from the site, and then unloading it. Even if the repair site is near their home, they are obliged to drive all the way back to the HEC Center to return the van before heading home, in case another technician may need it for an emergency repair.

## **Section G: Information Technology and Support**

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While touring the facility we observed that computer equipment is also located in the same rooms as the Center's HVAC equipment. In one room, the drip pan for the HVAC overflow is suspended directly above critical computer equipment.

### **Inefficient Use of Warranty and Spare Inventories**

In many instances, IT employees are told that when system problems arise, they are to only utilize the manufacturer warranty rather than troubleshoot to determine what is the cause of the problem. Often, they are forced to wait for the manufacturer to overnight parts, which can take in excess of 24 hours, rather than letting the IT group fix a problem within a few hours.

In addition, limited spares are maintained and service contracts with key vendors are for next business day, not 4 hours, replacement service. By working with its primary vendors to establish both an inventory of most common and critical spares and staffing for a 24 x 7 on-site facility, HEC may be able to reduce the risk or length of any downtime.

Many attendees feel that system issues could be avoided by a regular well-communicated preventative maintenance program. They believe that management creates internal communication problems; scheduled preventative maintenance downtimes are communicated to upper HEC, HFD and HPD management, but are not always communicated to the end-users. Their perception is that a management mindset exists generally within the Center, which discourages groups from communicating directly with one another. (This view is similar to that expressed by many focus group attendees from the various call handling functions.) Attendees and management viewpoints on preventative maintenance do not coincide; attendees mentioned a relative lack of formal preventative programs, management pointed out that they perform this by regularly walking around within the PSAP and, as they identify items with potential need, schedule their respective IT support group to perform that.

### **Lack of Proper Training**

Overall, the members of the IT group feel that they are not receiving proper training on the systems they are supposed to maintain. Managers may be sent to training, with the intent for them to come back and train their employees, but the employees themselves rarely receive direct training opportunities. Some employees in the group are reportedly underutilized whereas other employees are overworked because they are not cross-trained in the different jobs. Vendors have offered to provide free training on their systems if the City pays the plane fare and hotel fare, but the City is not taking advantage of these situations. Instead, management is looking at the fact that the system is under warranty so they would prefer to let the vendor fix it, instead of training their own IT staff. Members of the IT group speculated that this is due to the fact that the liability remains with the vendor as opposed to being transferred to the City.

## **Section G: Information Technology and Support**

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### **Limited Career Path**

Many within the IT group reported feeling that there is no career path or promotional opportunities at the Emergency Response Center. Their perception is that management's technique is to manage by intimidation by threatening that their jobs can be outsourced at any time. There is a risk that in order to further their careers, they will change departments or even leave the City, increasing concern over maintaining an adequate support function. Increased risk and turnover could expose the Center to extended downtime in the event of a failure in mission critical equipment or software. Although employees have previously demonstrated the ability to resort to dropping slips manually, any such extended downtime could negatively impact the Center's ability to provide a proper, timely response to emergency situations.

### **Systems Downtime – Perception and Reality**

Members of the IT group reported inaccurate public portrayal of the degree of system malfunctions. The CAD system has been up 99.8%\* of the time. (\*Statistics per related in depth MITRE report, cited below.)

As noted by other independent consultants in the MITRE March 2005 End-to-End Houston Emergency System Performance and Process Assessment report, “seventeen outages have occurred since the system went live. . . . Ten of them occurred before the system acceptance in a period of less than 3 ½ months. After the period of acceptance, the frequency of outages has been significantly reduced, with only seven outages occurring over a period of almost 12 months, but the recovery times were generally longer. . . Each downtime period of an outage consisted of corrective downtime, preventative downtime, and/or delay time (for lack of logistic or administrative support). The last two outages were scheduled repairs and hence considered as preventative downtimes.” Based on our IT focus group discussion, system issues can be attributed to the design and structure of the building itself. See also – Section H, Facility Security and Disaster Recovery for recommended follow up.

However, we also learned from various IT and non-IT respondents at the Center that on various occasions systems issues perceived as emanating from the Center are in fact caused by operability in other interrelated systems, e.g. the HPD servers at other locations, equipment within response units (e.g. MDT's) or located at fire stations. As previously noted, some of the mission critical IT equipment at the Center is also controlled by and belongs to Greater Harris County (which also funds part of the costs related to the City of Houston's initial emergency call receipt and handling). The Center IT personnel have limited or no control over such systems and equipment that lie outside their departmental jurisdiction but upon which the Center is reliant to help deliver an end-to-end emergency response.

## **Section G: Information Technology and Support**

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### **CAD Downtime Work Around**

Based on our attendance on the PSAP floor during an instance of CAD downtime, and which occurred in the generally busier early evening period, we observed the manual workaround procedure performed by the various functional groups. The respective Fire/EMS and Police Telecommunicators manually noted the requisite information gathered during the calls on specifically colored paper (by call priority / type). HEC supervisors distributed these to the respective Police Dispatchers and to the Fire/EMS Dispatch gatekeeper, in conjunction with the respective classified supervisors over dispatch.

The Police Dispatchers kept manual note of the specific units' location in their district based on the last CAD record on screen and frequent radio contact and dispatched the units by radio based on the manually dropped call slips. We observed that the additional time required by Police Telecommunicators to capture information manually did not appear to impact the subsequent dispatching of units in the field. However it did cause calls to back up at the 9-1-1 positions; although 9-1-1 Telecommunicators usually handle only one call at a time, one agent we observed and spoke with was simultaneously handling two calls with one on hold which she frequently reassured while waiting for a Police Telecommunicator to free up for transfer. The lower Fire/EMS call volumes did not appear to have the same effect but could be impacted by the reduced availability of 9-1-1 Telecommunicators.

On the Fire/EMS Dispatcher side, this afforded us an opportunity to witness the claimed benefits of the individual HFD officers' years of experience being put to practice.

One officer looked up the address in the key map and based on his personal topographical knowledge determined the appropriate fire station, assigned it as the RA (Response Area) and passed the hard copy slip to the second officer. Note: the key map also indicates the location of all fire stations, which could be highlighted in the key map to assist a less experienced, but trained, user. This function is usually an automated activity within the CAD system – however, a trained civilian could arguably perform the manual work around with minimal impact on the overall response time.

In fact, if each Senior Fire/EMS Telecommunicator were trained to do this and each console position were then equipped with a suitably annotated current key map the overall response time during a manual work-around may even be reduced slightly as the use of a single classified officer to do this creates a temporary bottleneck.

A manual control board is used which lists all stations and the equipment assigned to each location, with each piece of equipment identified by a separate golf tee. When a unit is dispatched, its tee is removed; when its crew radios completion of that run, a tee is re-inserted to indicate its availability – a process, which seemed to work very effectively. A second HFD officer directed the classified personnel who removed the respective equipment's golf tee marker from the manual control board and advised the personnel on

## **Section G: Information Technology and Support**

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the appropriate mike position, who then dispatched that unit via radio. The officer's experience really came into play when the equipment at the station on the RA was already in service; the officer then determined which other station's unit to use as the alternative – sometimes this resulted in his having to select and dispatch his third or even fourth choice unit. Although a civilian employee might find it difficult to gain the experience and knowledge demonstrated by HFD classified personnel in performing the alternative equipment selection, which is a strong argument for maintaining a classified Liaison Specialist role in the near term, in the long term, the functionality could arguably be replicated by using a pre-established chart, matrix or decision tree which lists the alternative back ups for each station and piece of equipment. However, absent an on-site classified HFD presence in the Center, some similar contact point could be desirable for use in such emergencies.

Fortuitously, an experienced member of the IT support team was still on-site when the CAD went down – caused apparently by a database issue – and he and a colleague were able to restore the system operability in approximately 30-45 minutes.

## **Section H: Facility Security and Disaster Recovery**

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### **Section H: Facility Security and Disaster Recovery**

#### **Improvement Opportunity**

Based on our focus groups, individual interviews, and observations, several potential gaps exist in overall security measures, which may expose the Center to significant adverse risks.

#### **Summary Recommendations:**

Below is a summary of recommendations for this section of the report. Please see the “Recommendations” section of this report for a more detailed recommendations discussion.

- We recommend that the Center prepare a formal business disruption and continuity plan in the event that the Center becomes disabled for any period of time.
- We recommend that the Center enforce a “no tailgating” policy for both vehicles entering the facility grounds and for individuals entering the secured areas of the building.
- We recommend determining if MITRE fully addressed these areas and consider whether further risk management is needed given the concerns communicated.

#### **Discussion:**

On several occasions we deliberately did not swipe our ID card through the card reader used to open the gate but instead entered the facility grounds by “tailgating” behind other entering cars. Although the guards are usually attentive, and several of us even recognize each other and wave, on some occasions the guard on duty does not closely inspect the vehicles while they are entering. In one instance, the third car in sequence was allowed to tailgate inside while the guard was looking the other way throughout the entire time.

As a mitigating control, access to the actual building requires the use of an ID card to pass through two successive electronically secured doors. Visitors also pass by a guard desk first and have to be met and escorted by Center personnel in order to enter.

Allegations of infrastructure risks include:

- Call center floor shielding
- Wiring code violations
- Cable box accessibility

## **Section H: Facility Security and Disaster Recovery**

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### **Response to Emergencies Within the Center**

In the event that the Center becomes disabled for any considerable length of time i.e. in that employees could not physically work at the Center, a formal disaster recovery plan does not currently exist.

Approximately 6.30 p.m. one evening while we were out on the PSAP, the fire alarm went off. The siren continued to sound for approximately 30 minutes. No one appeared to know what action to take or if the alarm were real or only a test; a senior HEC official present did not know but observed that if it were a test, then they should have been informed. There were no existing promulgated directions what to do in such an event and no one evacuated. The HPD Classified Sergeant on duty called their command center downtown to advise them; they in turn apparently contacted the Fire Department. We noted several communications via the CAD by Telecommunicators expressing concern, that they were (rumored to be) locked in the PSAP and building. The door at the East end was broken; supposedly by someone trying to re-enter or to leave. (In practice, all electronically controlled entrances were locked down and access cards did not work. However, all doors could be opened manually to allow people to exit). Some HEC employees commented to us that they were watching the HFD classified personnel to see if they would leave; however, the alarm coincided with their shift change, initially confusing some of these observers. We walked across the floor with an HPD duty sergeant to check on status with HFD Dispatchers and were informed by them not to be concerned because if there were a fire they would see smoke. The alarm was finally traced to a faulty detector, which had allegedly been tripped while it was being cleaned.

A few days later we received a draft copy of the new “Emergency Building Evacuation Plan” which management is currently formulating. Subsequently we also received a copy of the draft basic plan for the Center, as of April 13, 2005, and which draft also incorporates related procedures.

Although emergency call processing continued virtually unabated during this time (and one usually of peak calling activity), this event highlighted the Center’s susceptibility to a single act of such nature and the general lack of contingency planning / disaster recovery in such circumstances.

### **Center Security**

We are concerned at the level of security at the Center over both physical access to the facility and various critical assets and resources. Although there is a perimeter fence with guard house and security gate at the main entrance, supplemented by electronically controlled access doors to the main building, we were able to gain access unchallenged to both the grounds and inside the facility without using our issued security passes and key cards.

## **Section H: Facility Security and Disaster Recovery**

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On several occasions participants in focus group and other meetings expressed concerns that in the current environment of high stress and low morale, more security and an awareness of risks related to violence or acts of anger is needed. To date, incidents of petty damage to Center property such as marking of walls have occurred. However, we recommend that management work together to collectively address action to minimize the risk from such a threat.

**Alternative Org.  
Scenarios**

## **Alternative Organizational Scenarios**

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Based on the issues noted, management should consider alternative organizational structure scenarios to improve conditions at the Center. We have identified four alternatives which are presented below, although others could be developed by management:

Of the alternatives identified during this review, given the analysis of activities, staffing, objectives and issues, we recommend scenario “IV – Unified Structure” as our preferred organizational structure. This recommendation provides economies of scale, meets the initial Center consolidation “intent” and plan, and is supported by a proven “better practice” evidenced by the City of Chicago’s Office of Emergency Management Center (“OEMC”) consolidation results.

### **I – Current State, Refreshed**

Under this scenario, each group may continue to staff and administer its own functions:

- HEC: Civilian 9-1-1, Police Telecommunicators and Fire/EMS Senior Telecommunicators; and Supervisors
- HFD: Classified Fire/EMS Dispatch
- HPD: Civilian Senior Police Telecommunicators and Classified Supervisors

However, this also assumes that:

- Each group is empowered to and does staff to the full number it requires
- The appropriate disciplinary steps are instituted and consistently followed to remove (“indefinitely suspend”) any underperforming or abusively absent employee

#### **Advantages to this scenario:**

Minimal changes to status quo

#### **Disadvantages to this scenario:**

This structure does not resolve most of the current issues, including top-level decision-making /arbitration, the existence of three distinct and segregated entities, the lack of a single common team culture, and various morale and related performance issues.

### **II – Bifurcated Structure With a Shared Services Function**

Under the Shared Services model, HEC could continue to provide and manage essentially the same functionality as it does presently, but in the capacity of a service provider,

## **Alternative Organizational Scenarios**

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directly responsible and responsive to the respective HFD and HPD management / organizations.

Under this scenario, there can be two distinct call categories each with its related flow:

- 1) Police calls and response – under the direction of HPD (classified management)
- 2) Fire/EMS calls and response – under the direction of HFD (classified management)

Consistent with the evolving current practice, 9-1-1 calls would be handled by dedicated 9-1-1 Telecommunicators and by cross-trained 9-1-1 / Police Telecommunicators, who would personally handle Police calls and forward Fire/EMS calls to dedicated Fire/EMS Senior Telecommunicators.

### **Advantages to this scenario:**

- This makes the HEC administered functions more accountable to the organizations they support and which deliver the actual service response in the field.

### **Disadvantages to this scenario:**

- This has the immediate disadvantage of requiring HEC management and personnel to conform to two sets of potentially conflicting masters, practices and policies.
- It does not rectify the overriding issue of three separate organizations versus a common unified team; in fact it even has the potential effect of making personnel in one of the three current “equals” appear subservient to the others.
- It still perpetuates the duplication of various back office and management functions.

## **III - Bifurcated Structure Without a Shared Services Function**

The respective HFD and HPD groups could inherit the functions previously managed by HEC. These employees could then become HFD or HPD civilian employees (much as the Police Dispatchers are today).

Consistent with current practice, the 9-1-1 and Police Telecommunicator functions could be cross trained over time to handle Police calls while routing any Fire/EMS calls to the Fire/EMS Senior Telecommunicators.

### **Advantages to this scenario:**

This places the receipt and handling of emergency calls under the jurisdiction of the organization ultimately responsible for delivering the related response in the field.

## **Alternative Organizational Scenarios**

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### **Disadvantages to this scenario:**

- Fire/EMS management's ability or attempt to exert authority over the cross-trained 9-1-1 Telecommunicators (who answer all 9-1-1 calls) may be problematic if the respective Fire/EMS and 9-1-1/Police Telecommunicators were employees of two separate organizations, i.e. HFD and HPD.
- Potential conflict/morale issues between personnel performing similar functions but subject to different personnel, shift, compensation, etc. policies and organizational cultures.
- Creates two separate, instead of one common, career path for call handlers; transfers between the two different and legally separate organizations could be problematic.
- It perpetuates the current disparity whereby dispatching is performed by civilians on the Police side, and by classified personnel on the Fire/EMS side.
- Determining CAD system requirements, when both entities currently have different content / completion needs.
- Determining how differences / disagreements between the two organizations may be decided (i.e. who can exercise tie-breaker authority).
- Determination of costs and the allocation of the current call handling related funding provided by Harris County.
- It could require classified personnel who are not necessarily trained or accustomed to doing so, to manage civilian employees (and who may not be accustomed to functioning in a para-military organization).
- It still perpetuates the duplication of various back office and management functions.

### **IV – Unified Structure**

Under a unified structure, all Center functions could report to a single authority empowered to make all Center related management decisions. All current HEC and HPD employees could be employed by that department. These personnel should carry their existing seniority / years of service with the City with them for purposes of any seniority determined bidding, vacation etc.

Over a short period of time, the classified HPD supervisor and classified HFD dispatch roles should be migrated to suitably qualified and trained civilians. This should also place critically needed HPD officers and HFD firefighters and EMTs back in the field where their experience (in many instances, encompassing ten to over twenty years) is critical and most effectively deployed; the majority expressed a strong preference to be back in the field (versus being in the Center). However, a small number of HFD and HPD Liaison Specialists – probably one or two of each per shift – could be retained in the

## Alternative Organizational Scenarios

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Center to provide requisite subject matter expertise and support for the immediate future. In the longer term, as the respective dispatchers and their management become more experienced, these physical on-site functions could possibly be phased out and replaced with a hotline to designated respective HFD and HPD command centers for use in extraordinary circumstances.

Although the primary objective and outcome of this scenario is the creation of a single unified emergency response center to deliver the optimal response services to the local citizenry, it is also estimated to generate \$1.8 million in initial payroll expense savings for the City. **(Appendix F-1)**

### HPD

The HPD supervisory roles could be migrated to suitably trained civilian supervisors. A smaller contingent of HPD classified personnel could be retained as Liaison Specialists; such personnel should already have several years of street patrol and field response experience. These classified HPD personnel at the Center could be volunteers for a prestigious assignment, as opposed to the current situation in which they are assigned to the Center by obligation as a rite of passage. Today, sergeants are required to spend a one-year period either at the Emergency Response Center or at the City jail. As Liaison Specialists, these officers could be assigned for a longer period and also be fully trained in the CAD systems, with half rotating out at alternating times, to ensure continuity of knowledge. Arriving officers could be assigned to partner with an existing officer for an initial period to gain requisite Center experience before the shifts are re-bid to give the longer serving officers first choice of shifts.

Although officers may have input into the Dispatchers' annual EPE, all staffing and administrative functions would be performed by civilian supervisors / management. The classified HPD Liaison Specialists could work either 5 x 8 hours or, as a possible added incentive for working at the center, 3 ½ x 12 hours shift patterns per week. *Functionally*, they could report on a day-to-day basis to specified civilian Center management. This could be directly or preferably via an assigned on-site classified officer, possibly a ranking Lieutenant, who could be responsible for HPD logistics and operations. This Lieutenant could then report directly to the Center Director. The Lieutenant's and Liaison Specialists' individual performance assessments, shift assignment, promotion decisions and all other HPD related matters could be determined solely by the Lieutenant and through their HPD chain of command. We understand (informally from City legal counsel) that such a *functional* arrangement should not contravene State Law preventing officers from reporting to or being directed in their duties by non-classified personnel.

In addition, as separately noted, this could also facilitate the transfer of the Teleserve function from a separate location to the Center. Currently, this function has to be supervised by classified HPD sergeants, even though there may be as few as one or two call handlers on a given shift. The assigned Liaison Specialist could also double as the required duty sergeant, freeing up overall headcount.

## Alternative Organizational Scenarios

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### HFD

A similar transition could be effected, more gradually, on the Fire/EMS dispatch side using suitably qualified civilians, drawn from current Fire/EMS Senior Telecommunicator ranks or recruited from personnel performing such functions at other similar agencies. Since much of the actual unit dispatching is automated by the functionality within the CAD system based on call type, the additional training required may be minimal. The major mike position functions primarily involve the post dispatch monitoring of those units to ensure that they receive and acknowledge those automated dispatch instructions promptly. When needed, these positions dispatch additional units based on directions received directly via radio from the classified personnel on-site at the incident. However additional training on the location of City fire stations and the equipment maintained at each is critical to success of this transfer to civilian operatives.

As proposed in the Police Dispatch arena, a reduced number of experienced HFD personnel could be retained as Liaison Specialists. One, or possibly two, HFD Liaison Specialists may be required each shift to provide the requisite field expertise. Based on current HFD staffing at the Center, a prerequisite for such positions should probably be a minimum of ten years of progressive fire extinguishment and EMS experience gained at multiple stations across the City. These personnel could also staff the event-specific channel(s) in the event of a major (e.g. multi-alarm) incident.

The most critical HFD staffed function presently is that of the current gatekeeper who reviews all incoming dispatch requests from the Senior Telecommunicators to ensure that they are coded appropriately (i.e. which drives the type of responding units). Such function may need to be staffed by classified personnel in the immediate short term; this could be achieved by using the Liaison Specialists on a rotating basis during their shift. However it also creates an artificial bottleneck. (There are no empirical data to indicate whether or how often such reviews avoided the dispatching of inappropriate or insufficient units). Since most 9-1-1 Fire/EMS calls involve an immediate emergency response, in the longer term, Senior Telecommunicators should be trained to dispatch units via the system directly from the calls they handle, thereby further improving (i.e. reducing) the overall response time by as much as 30 seconds on any given call. This should also drive some nominal cost savings.

Based on our attendance on the PSAP during an instance of CAD downtime during the generally busier early evening period, we noted two primary roles, which leveraged individual HFD officers' years of experience. Both of these activities could ultimately be performed by suitably trained and supported civilians, and in conjunction with other supporting tools. However, the presence of at least one HFD Liaison Specialist per shift could be desirable, particularly in the near term.

- The current use of a single classified HFD officer to identify, in conjunction with the key map, the fire station closest to the event creates a temporary bottleneck during the manual work around procedure. Response time could actually be reduced by training the civilian Fire/EMS Senior Telecommunicators to perform this function, thus

## Alternative Organizational Scenarios

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spreading the workload in a manner consistent with the related call distribution generating it.

- Although the classified HFD officer's experience really came into play in determining which alternate station equipment to dispatch (when the assigned RA was already in service) this could arguably be done by suitably trained personnel equipped with a pre-established chart or decision tree and phone access to a classified HFD contact (possibly at certain designated stations?) as an emergency back up.

Since the current Fire/EMS Dispatch operations represent a distinct career path for classified HFD personnel, the City would need to identify alternative career paths for approximately 50-60 personnel. This should include possible transition over to critical fire extinguishment roles. (We understand that the latter currently has approximately 750 personnel on each of four shifts / platoons so absorption should not theoretically be an issue.) All current HFD classified personnel have at least 10 years of field experience each; a third of the roster has over 20 years experience and such experience may best benefit the citizenry of Houston in the field.

Since state law precludes classified personnel from reporting to civilian personnel, as noted under HPD section, the small number of classified HFD Liaison Specialists could continue to report to a designated classified commanding officer, possibly on site, or through their respective chain of command for all shift/staffing, compensation, performance evaluation, promotion and disciplinary matters. *Functionally*, the on-site classified personnel assigned to the Center could report on a dotted line basis to the Center Director for all day-to-day (call handling and dispatching) operational purposes.

### Civilian Telecommunicators and Management:

Any conflicts between classified organizations and civilian center management could be decided by the Director of Public Safety, who is appointed by the Mayor, and in his capacity as chair of the Governing Board.

The Center Director could report to the Director of Public Safety. During any transition period, the current HFD and HPD commanding officers on site could report on a dotted line basis to the Director of Public Safety who should always have ultimate responsibility and decision authority for all Center operations.

The Director of IT for the Center could also report directly to either the Director of Public Safety or to a Chief Technology Officer for Emergency Services (see related recommendation and discussion within IT section) with a dotted line for day-to-day activities to the Center Director.

Call-takers should be provided with a career path and retention and performance incentives. A promotion path should be created from entry-level 9-1-1 call handlers, through cross training to joint 9-1-1 & Police Telecommunicators. Qualified personnel

## Alternative Organizational Scenarios

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could then receive training and progress into Senior Fire/EMS Telecommunicator roles. The availability of cross-trained Fire/EMS/Police Telecommunicators should allow some personnel to be prioritized within the switch for Fire/EMS calls but available to take Police calls during lulls in Fire/EMS call activity. Subsequent progression includes respective Dispatch functions as well as Supervisor and Trainer functions for each level. Personnel should also provide a pool of talent for staffing back office and management positions. The existence of a single organization permits employees to be trained and intern in the next higher level positions on a trial basis with the ability to remain in their existing positions if the move did not prove viable for any reason. (Currently potential Police Dispatchers have to transfer from HEC to HPD then risk inability to transfer back to HEC if they do not pursue their new function).

### Service Quality, Financial and Other Considerations:

The provision of appropriate training and managed transition of the respective functions should minimize or avoid any reduction in quality of emergency service delivery – the primary goal of the Center. The provision of a single primary pool of Telecommunicators should facilitate cross training and advancement based on ability, improving the quality and effectiveness of civilian Telecommunicators and their service delivery.

A by-product of the improved organizational structure and operational effectiveness should be a reduction in total personnel related operating costs. Fewer senior ranking HFD and HPD officers (chiefs, captains, lieutenants) or personnel with current level of longevity of service should be required, representing an immediate savings. Salary differentials between qualified civilians (Senior Telecommunicator/Dispatchers and related Supervisors) should reduce related expenses. These savings should be offset in the mid-term by need for some Liaison Specialists.

There should be several less quantifiable benefits as noted below, primarily including the creation of a single Emergency Response Center team and improved morale, attendance and employee retention (and related hiring/training and potentially sick/FMLA expenses).

### Advantages to this scenario:

- Single, unified organization responsible for all Emergency Call processing activities from end-to-end;
- Improved responsiveness and emergency and non-emergency service delivery for citizens;
- Consistent and equitable procedures and treatment of all (direct and support) personnel across the Center;
- Reduced operating costs to the City as a whole, by reducing number of higher ranking and more highly compensated managers and officers, and benefits of some anticipated economies of scale in training and supervision;

## Alternative Organizational Scenarios

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- Increased number of highly experienced (10-20 plus years in the field) classified fire fighters and police officers available for immediate deployment directly in the field rather than in “desk” jobs;
- Improved working hours and shifts for personnel, with potentially greater flexibility in selecting hours with associated reductions in both overtime and (potentially abusive) sick / FMLA usage;
- Reduced stress and potential repetitive motion injuries and improved general health of employees;
- Defined career path for all call center personnel from basic call handling through to front and back office support, training, supervisory and management opportunities;
- Development of a pool of high quality talent for successor planning and emergency back up purposes;
- Improved morale and sense of membership of single unified team;
- Voluntary versus obligatory roles for selected classified personnel as recognized subject area experts;
- Single set of policies and procedures instead of multiple, often conflicting ones.

### Disadvantages to this scenario:

- Need to identify sufficient qualified HPD and HFD Liaison Specialists to provide subject matter expertise to the Center
- Need to add responsibilities to the current Director of Public Safety
- Need to place 50-60 highly experienced (10-20 plus years in the field) classified fire fighters and police officers available for immediate deployment directly in the field rather than in “desk” jobs.

## Recommendations

## **Recommendations**

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### **Recommendations**

Since many of our recommendations pertain to issues that are critically interrelated, as each is presented, we have included the primary area or several areas to which it relates.

- The Center's mission is to provide optimal emergency response services to the public. Although several of our recommendations represent significant cost savings opportunities for the Center and the City, we firmly believe and recommend that the quality of service delivery, not the financial cost savings, should always be the most critical measurement criterion that is considered.
- A number of recommendations relate directly to the current quality of response delivery and potential opportunities for improvement. Others relate to various personal concerns expressed by different parties throughout the Center; although individually some of these are arguably more minor issues, they are considered important by those parties affected and thus collectively they impact both the overall work environment in which the emergency response services are delivered and the mind-set and attitude of those facilitating that delivery.
- The most immediate issue is the existence of three separate organizations, with unique cultures and management styles, and no single centralized day-to-day authority over all emergency response services at the Center. We recommend that the City implement a single unified organizational structure at and over the Center, consistent with that outlined in Alternative Organizational Scenarios - Scenario IV – Unified Structure.
- Regardless of the future organizational structure that the City may elect to adopt, the City and the respective HEC, HFD and HPD organizations need to address collectively the significant morale issues pervasive throughout all groups at the Center.
- The City and the respective HEC and HPD management should start an immediate, proactive recruitment program and campaign to staff up the civilian Telecommunicator rosters, which are operating at sub-optimal levels. The shortage of available staff, further exacerbated by the resulting high incidence of related compulsory overtime and the generally confrontational work environment, is considered one of the root causes of both low morale and increasing absenteeism. It may also place at risk the delivery quality and reliability of critical emergency response services. This risk is most evident in the Police Dispatch function, which is presently experiencing an increasingly acute and potentially mission critical shortage of available personnel.

These specific high level issues and recommendations are discussed in more detail in the related recommendations, which follow.

## **Recommendations**

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### **Ineffective Organizational Structure**

Based on the issues noted, management should consider alternative organizational structure scenarios to improve conditions at the Center. We have identified four alternatives which are presented below, although others could be developed by management:

Of the alternatives identified during this review, given the analysis of activities, staffing, objectives and issues, we recommend scenario “IV – Unified Structure” as our preferred organizational structure. This recommendation provides economies of scale, meets the initial Center consolidation “intent” and plan, and is supported by a proven “better practice” evidenced by the City of Chicago’s Office of Emergency Management Center (“OEMC”) consolidation results.

- Although the primary objective and outcome is the creation of a single unified emergency response center to deliver the optimal response services to the local citizenry, the Unified Structure proposal is estimated to generate \$1.8 million in initial payroll cost savings for the City.
- In addition to the single organizational structure, the reduction in enforced overtime as a result of full staffing, combined with the provision of a determinable career progression and successor planning, should improve work conditions for employees. This should drive improved morale and employee retention and lead to reductions in absenteeism and related City sick leave and overtime premium expenses.
- The creation of a single cohesive team instead of several separate and individually unique organizations should allow the City to leverage economies of scale, especially in back-office functions and all levels of staff and operations management. These savings should allow the necessary resources to be hired and deployed in the direct call-processing arena to improve the overall quality and reliability of emergency response service to the public.
- The City should establish, clearly communicate and adhere to a consistent long-term plan for the Center and the provision of emergency response services. One of the most frequent observations from groups at the Center is a desire for a final decision to be made on the potential civilianization (or not) of all call center functions.

### **Staffing Methods, Operational Management**

- HEC and HPD management should immediately consider a program where interested and qualified Police Telecommunicators could undergo training and then spend a probationary period as Police Dispatchers. During this period they could still be employees of HEC. Upon completion of the probationary period, successful Police Telecommunicators could be promoted to Senior Police Telecommunicators and – if the Police Dispatch function were still within HPD – could then transfer to HPD

## Recommendations

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payroll and supervision. Those who either chose not to become dispatchers or did not meet the requisite standard could remain as Police Telecommunicators with HEC.

- HEC and HPD management should also consider a program where additional Police Telecommunicators are trained as Police Dispatchers but remain with HEC in a reserve pool. These Police Telecommunicators could receive an additional stipend in recognition of their additional skill level. This pool could then serve as a source of dispatchers both for temporary / emergency staffing shortages and as replacements Senior Police Telecommunicators to cover attrition. Such employees could be required to staff a specific number of Senior Police Telecommunicator shifts per month (probably on slower mike positions) to maintain their skill level.
- HPD management should consider relocating the Teleserve function to the Center from its current off-site location to leverage economies of scale and drive efficiencies. We understand that the Teleserve function has to be supervised by assigned classified HPD sergeants, even though the number of call handlers on any given shift may be minimal. The economies of scale achieved by combining this supervisory function with that for Police Dispatch should free up headcount to supplement Center staffing or for deployment in the field. The reduction of one supervisor per shift equates to a headcount reduction of five roster personnel and estimated annualized savings of approximately \$416,000 including benefits, using an estimated annual salary of \$64,000 for HPD Sergeants. (**Appendix K-1**). Nominal additional savings and qualitative productivity improvements may be generated by cross training Teleserve personnel and deploying other current Telecommunicators to handle Teleserve call backs during quieter periods.
- HPD management has developed a proposal for a forty hours work week comprised of three 12 hours shift and a single 6 hours shift per week including daily unpaid thirty minutes period for lunch. This should provide all employees with three and half days off each week, including one weekend day. HPD management estimated that this should also generate almost \$300,000 in overtime savings and a further \$189,000 from a savings in headcount of 6 new hires. Given the current work conditions, and depending which of the identified scenarios the City may elect to implement, if HPD is unable to identify and hire additional headcount to reduce present overtime rates, this proposal should be given further consideration.

While this proposal was voted down in late 2004, arguably it might benefit many of those employees who voted against it; available Senior Police Telecommunicators are currently being mandated or drafted to work several 12 hours and longer shifts per month, albeit at higher individual (overtime) pay rates, and sometimes with minimal personal downtime at home between shifts. Although the possibility of a 3.5 days workweek may be advantageous in attracting qualified personnel from the Police Telecommunicator and Senior Telecommunicator ranks, the effects of operating a variety of different shift patterns under Scenarios 2 through 4 should not be underestimated, from the perspective both of morale and of logistics. E.g. such shift diversity may preclude the optimal use of civilian supervisors to oversee multiple

## **Recommendations**

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functions across the Center or the provision of a smooth advancement path to Telecommunicators. Longer shifts also provide less flexibility for staffing to concentrated peaks in call volumes, which may sometimes be addressed better by the use of swing shifts similar to those currently deployed by HEC.

### **Employee Evaluation, Rewards and Retribution**

- Since an employee's attendance is already assigned equal weighting with seniority and EPE score for purposes of determining the order of employee shift bidding, we recommend that attendance not be included additionally as one of the mandatory factors used to calculate EPE scores.
- Management's rationale for including attendance as a factor in the EPE score is that if an employee is not physically at the Center to answer calls, other employees must pick up the slack by working more hours to answer the calls. While this is true, the current EPE methodology allows for an employee to be absent for up to 80 hours of vacation time, 480 hours of FMLA time, and 24 hours of sick time (a total of 584 hours) and still be rated ahead of an employee who misses only 64 hours of sick time (the amount the City provides each year). In such circumstances, other employees must make up the difference of 520 hours (equivalent to 65 shifts or 5 additional shifts per month) for each such absent employee. This generally necessitates paying other employees at time and a half overtime, to cover these shifts. However, the absentee employees who missed this time may still receive higher EPE productivity scores, based on the times they are present.
- Since an employee's attendance is already assigned equal weighting with seniority and EPE score for purposes of determining the order of employee shift bidding, we recommend that attendance not be included additionally as one of the mandatory factors used to calculate EPE scores. Current EPE methodology allows for an employee to be absent for up to 80 hours of vacation time, 480 hours of FMLA time, and 24 hours of sick time (a total of 584 hours) and still be rated ahead of an employee who misses only 64 hours of sick time.
  - We recommend the hiring of a consultant to analyze the EPE methodology and to establish an evaluation/scoring process that utilizes both objective and subjective factors to provide a consistent and equitable measure of employee performance.
  - In the interim, we recommend the productivity measure be split into two measures, one measure to calculate call efficiency per hour (utilizing the current methodology), and a second measure based on total time logged in during the year. Alternatively this could be achieved by adding bonus points to the productivity portion of an employee's EPE based on total time logged in during the year. This should reward the employees who spend the most amount of time productively taking calls at the Center.

## **Recommendations**

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- We recommend that supervisors who are rotating away from the Center be required to provide EPE ratings for all employees they have supervised since the previous EPE period before they are allowed to begin their new assignment.
- We recommend that the duties of the Employee Relations Manager do not include the performance of disciplinary actions, including employee suspensions. Employees participating in focus groups expressed the view that the Manager was not functioning as an advocate for employees but as an extension of management, a perception that is not enhanced by his involvement in administering employee suspensions.
- We recommend that management institute a rewards program to publicly recognize employees who have gone “above and beyond” or excelled in some noteworthy capacity. These include rewards of nominal value e.g. a known assigned parking space for the month, team casual dress day, etc. where the public recognition is more important than the intrinsic value of the reward.
- The City should evaluate, and improve as necessary, the current starting pay offered to new Telecommunicators, especially Police Dispatchers, relative to the equivalent compensation package offered by other major cities in Texas. Houston’s starting pay for Police Dispatchers is currently 6% to 21% *less* than the lowest and highest rates respectively paid by four other major Texas cities. This difference may be a major detriment presently to attracting and retaining the requisite qualified personnel.

## **Employee Evaluation, Rewards and Retribution; Low Employee Morale and Adversarial Environment**

- We recommend that, in accordance with both City and HEC policy, employees be allowed to take their deferred holiday time within 120 calendar days or be paid for these hours worked at the rate of time and a half and in the next available pay period after the holiday.
- We recommend that the City review its current FMLA policies and practices, including turnaround time and required medical authorization and second opinions, especially for intermittent FMLA conditions. FMLA usage at the Center has increased exponentially since its formation, as evidenced by high incidences of unpaid as well as paid (sick, vacation) FMLA taken. Employees complained at the length of time they must sometime wait to get an approval or denial on FMLA requests. Conversely, we noted high incidence of employees with intermittent FMLA, creating significant staffing logistics problems, especially to cover call-outs. We recommend that the City establish a list of approved physicians for FMLA determination purposes and discretionary authority for the respective organizations’ management at the Center to require the claimant of any dubious intermittent FMLA to be reexamined for a second opinion, at the City’s expense, by an approved medical practitioner of record.

## **Recommendations**

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### **Low Employee Morale and Adversarial Environment, Operational Management**

- Many focus group attendees observed that they do not know – and would not recognize – certain HEC management staff, including the Director. The team environment could be enhanced if HEC management were to spend additional “face time” with employees, including those on the PSAP floor.
- We recommend that management implement the best practice employed by many call centers of placing pictures of employees on a common notice board when they are recognized for various achievements e.g. employee of the month. Many also post pictures of key management and supervisory personnel, even all members of particular shift teams, to enable mutual recognition.
- We recommend that one set of common standardized policies be established for all civilian and classified personnel at the Center and be applied and enforced consistently. One of the singularly most common and egregious issues raised by all groups across the Center is the perceived, and often actual, inconsistent interpretation and application of sometimes multiple and conflicting rules both when applied to different groups in the Center and when applied to management versus employees.
- We also recommend that management ensure the appearance as well as the reality of equal and equitable treatment of all personnel. This should extend to both greater empathy for employees’ personal situations, e.g. serious illness or death of close family members and adequate related leave and to the stricter enforcement of rules and prompt imposition of penalties on persistent offenders or abusers.
- We recommend that all civilian employees at the Center be held to the same measurement standards and conditions. This includes an evaluation and reward system based more on performance than solely on seniority.
- We suggest that HPD determine whether its civilian HPD employees are to be held to the same standards and afforded the same benefits as HEC, other City, or other HPD civilian employees, since their current treatment is inconsistent with any one such group. Depending on the number of relief personnel available on a given shift, i.e. two or three, Senior Police Telecommunicators currently receive less, or more respectively, total lunch and break time per shift, than their HEC counterparts. Conversely HPD’s civilian employees at the Center work and are paid for an eight and a half hours shift, consisting of 30 minutes of unpaid time for lunch and eight hours worked (including breaks and up to a 30 minutes roll call). This is consistent with (most) other City of Houston civilian employees. However one of their complaints is that all other HPD civilian employees are apparently paid for an eight hours day, which includes 30 minutes (paid) lunch or only a net 7.5 hours worked (including breaks). We recommend that all City employees, including those at the

## **Recommendations**

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Center, consistently be held to the same rules and regulations and afforded equitable benefits and working conditions.

- In order to foster a stronger sense of a single united team, we recommend that HEC management consider requiring management and especially back office HEC personnel to adopt a similar dress code, i.e. HEC uniform, to that required of personnel in the PSAP.
- Similarly, to ensure uniform application of rules to all personnel in the Center, we recommend that management of all the respective organizations present in the Center prohibit the use – and even placement – of televisions in all personal or common work areas, except for conference rooms. Should personnel need to follow specific contemporaneous City Council activities we suggest that this should be done either in a conference room, or by tuning one of the current or additional televisions in the common break area to the appropriate channel, or by having the on-site media relations officer periodically obtain or prepare digests of pertinent Council activities and post them in a common area.
- To avoid the risk of any potential non-compliance with Department of Labor legislation or related penalties, we recommend that the City clearly communicate that where employees such as Telecommunicators are required to attend a roll call prior to their shift, that such (30 minutes or less) is specifically paid time and that their 8.5 hours work day includes a 30 minutes unpaid lunch break.
- Although the Employee Relations Manager is to be commended for advancing his personal funds to assist employees in times of need, we recommend that HEC management discourage such practices, which might expose the City to accusations of preferential or discriminatory treatment by other, especially disgruntled, employees.
- Although we recommend that the City pursue a different scenario, should the City elect to maintain the current tri-partite organizational structure, as identified per Scenario 1, we recommend that City management consider a separation and segregation of the two major functions performed by HEC. These are: the management of 9-1-1 Call processing operations (from the receipt of 9-1-1 and 10 digits calls through to their transfer to Fire/EMS or Police Dispatchers or other parties), and the provision of common /shared Center infrastructure and related support services. These functions should be assigned to two separate management organizations. The City should consider having building services assume responsibility for all physical building and related logistics, space planning and assignment, conference room scheduling, etc. During our focus groups and interviews we learned of various instances where other organizations in the Center believed that certain mid-level HEC management personnel demonstrated an excessive (need for) control or overstepped the limits of their authority and/or allegedly gave preferential treatment to HEC employees / activities at the other organizations' expense. While some, such as parking spots or lockers, may appear mundane, others such as work

## **Recommendations**

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space allotment or provision of user licenses may directly impact those organizations' ability to manage and deliver their respective response services. This should address one of the perceived root causes of the current friction, which in turn adversely impacts the delivery of optimal emergency response services.

### **Operational Management**

- Place a light or flag on each console position for use when an agent requires assistance from a Liaison Specialist. Allow direct communication between dispatchers and call-takers under specified conditions without requiring critical time-consuming transmission of such requests through the two respective supervisory layers i.e. to gather / verify specific or additional data on high priority code calls.
- We recommend that all classified HPD personnel assigned to the Center, especially in a supervisory capacity, be fully trained on the CAD system. We understand that not all HPD personnel may be so trained today. Although there may only be a few HPD classified officers on site during any particular shift, and during the peak evening period in particular, this should provide some reserve of qualified personnel in the event that insufficient civilian Police Dispatchers were available to staff all the minimum mike positions. It should also increase the classified supervisors' credibility with the Senior Police Telecommunicators and allow them to be more effective.
- We recommend that Dispatchers be permitted to contact their Police and Fire/EMS Telecommunicator colleagues directly to confirm critical information, especially on high priority calls. Currently they must request this information via their supervisor who then relays it through the Telecommunicator's supervisor. Although such practices reduce the interruption of call-takers during a subsequent call or avoid additional call processing times, they may significantly delay delivery of critical Priority 1 and 2 calls, when confirmation of such missing data are of critical importance e.g. address particulars, description of suspect, direction of travel, type of weapon or if present, etc.
  - This issue could also be mitigated in part if the respective functions were under common supervision as noted under Scenarios III and IV.
- We recommend that as part of their training, Telecommunicators spend some time in the field with respective HPD and HFD emergency responders. This should enable the Telecommunicators to gain a better appreciation of the anticipated and actual conditions in the field compared to the information provided by the call center dispatchers.

## **Recommendations**

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### **Staffing Methods**

The absentee issues could be largely alleviated by a combination of increased staffing levels, disciplining of repeat poor attendees, including through to their functional demotion or indefinite suspension, and the creation of a pool of qualified successors / temporary replacements as part of a defined hiring, career progression and successor planning program.

- Management should also implement both a revised sick policy, which does not penalize employees for taking up to their statutory (per City of Houston) 64 hours of sick time, and an incentive program for minimal sick time and unscheduled absences.
- We recommend that the City both empower and require the respective groups' management to fully staff the multiple call processing functions, all of which are currently operating with a less than fully authorized or required complement of personnel. This should reduce overall expenses by replacing overtime with employees paid at regular pay rates and increase morale by reducing related mandatory overtime and drafting. In addition, the City may experience further tangible, but less precisely quantifiable, benefits from reduced absenteeism and paid sick time incidences, including potentially fewer intermittent FMLA.

The City's cumulative savings across the five major call processing functions from the avoidance of overtime pay premium could aggregate to almost \$1 million per annum as described below:

- All HEC administered Telecommunicator functions are understaffed driving high related overtime and absentee (sick time) costs. Total annualized 2005 expenses for overtime are estimated to exceed \$798,000 versus the \$498,000 budgeted for HEC call-takers. One third of this \$798,000, or \$266,000, represents the premium for the overtime pay rate, which could be avoided by fully staffing the HEC 9-1-1 Telecommunicator, Police Telecommunicator and Fire/EMS Senior Telecommunicator functions. **(Appendix I-1)**
- In addition, sick time for HEC employees for the first seven months of the 2005 benefit year period is running 2,668 hours, an annualized rate of over 4,500 hours per annum. At an average cost of \$15 per hour this should represent a projected annualized cost of approximately \$67,000. **(Appendix J-4)** Part of these expenses may be avoidable if employees were to experience a lower incidence level of overtime.
- The Police Dispatching function is currently operating with 70 civilian personnel versus an authorized roster of 92, which necessitates significant and demoralizing amounts of both mandatory and last minute drafted overtime. The Fiscal 2005 year to date overtime expense is \$462,000 or an estimated annualized expense including benefits burden of approximately \$720,000. **(Appendix I-6)** However, as the roster headcount continues to decline monthly, compounded by an increasing number of personnel with medical

## Recommendations

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restrictions, the monthly overtime expense may also rise. The average monthly overtime expense has increased from approximately \$46,000 for the first ten months of the fiscal year (i.e. since July) to over \$50,000 for the first eight months of the benefits year (beginning in August). **(Appendix I-6)** The estimated overtime required to staff the dispatch positions for March 2005 is almost \$86,000; an annualized total overtime expense run rate of over \$1 million. **(Appendix I-4)** The otherwise avoidable 50% premium for overtime pay comprises one third of this amount or almost \$337,000. Ironically, by hiring the additional roster employees necessary to staff the required shift positions (and avoid this overtime), HPD could not only cover the cost of these incremental personnel, but also still drive net annual savings in overtime premium of approximately \$195,000. Furthermore, HPD could mitigate the demoralizing impact, which this overtime has on a declining pool of dedicated employees. **(Appendix I-4)**

In addition, reduced overtime could potentially drive improved morale and attendance and thus reduce associated sick time abuse, generating further savings from sick pay expense. A less tangible benefit may be a reduction in employee fatigue with an associated improvement in work productivity and quality.

Although additional savings might normally be expected from the lower pay rates generally associated with new hires, this may be consumed by the need to match the starting salaries paid by four other major Texas cities, all of whose rates are higher than Houston's.

- HFD (Classified) Dispatchers are currently running estimated total annualized overtime expenses of approximately \$1 million (actual payroll data were not available). By hiring additional personnel, the City could drive annualized savings of up to \$347,000 in associated overtime premium. **(Appendix I-5)**
  
- We recommend that realistic and achievable long-term DCP and PCP goals be established which drive reduced call handling times without sacrificing the integrity (completeness and accuracy) of the information collected. The viability of and adherence to such goals should be validated by close and frequent call monitoring by supervisors and remedial Telecommunicator training, as warranted. Additional monitoring should also detect and prevent currently suspected incidences of DCP and PCP abuse i.e. where Telecommunicators may remain on a call or in a "not ready" status longer than is warranted or even use the conferencing function to then make personal outbound calls which also ties up the inbound trunk lines.

The HEC overtime payroll savings may also be achievable in part through reduced call-handling times, primarily for data capturing on police calls. We recommend that HEC's immediate priority be to supplement its staff, especially Police Telecommunicators, in order to provide both immediate overtime savings

## **Recommendations**

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and a pool of suitably trained and qualified personnel to feed Senior Telecommunicator and critical Police Dispatcher rosters.

HEC has recently begun holding Telecommunicators accountable – via performance evaluation penalties – for a 20% or greater improvement in a handling time, which has not changed during the previous 18 months that they have been under the same continuous HEC management and direction. We are concerned that unrealistic targets and related pressure imposed on Telecommunicators to shorten processing time may not only adversely impact their already low morale, but may place the quality of information gathered and thus of the related emergency response delivered, at great risk.

The current HEC target of 120 seconds or two minutes for Police Telecommunicators to process 9-1-1 Police calls is inconsistent with the average times of approximately 153-155 seconds, which they have consistently taken to handle such calls throughout 2003 and 2004. (**Appendices D-13 and D-15**)

Although the call nature and information required to be gathered differ between Police and Fire/EMS calls, the latter's handling times have been used by management as a proxy for best practices in establishing the 120 seconds target. However the shorter processing time demonstrated by the Fire/EMS Senior Telecommunicators may be attributable to their use of a more scripted rather than free flow data gathering process. It may also be attributable to their higher level of training or experience; many are former Police Telecommunicators. We recommend that HEC management perform a comparative study of the data gathering requirements, number of fields and keystrokes used, scripting and training provided, to identify areas which may have contributed to shorter Fire/EMS processing times and be transferable to the Police calls. Nonetheless, the average of 133 seconds that Fire/EMS Senior Telecommunicators demonstrated under HEC in early 2003 are still over 10% greater than the target HEC is now imposing on their Police Telecommunicator counterparts. (**Appendix D-14**) This weighted average handling time may have even increased in 2004 to 145 seconds. (**Appendix D-16**)

- In addition, we recommend that management also closely monitor the actual time physically spent on the phone and either on a call or available to answer a call. Enforcing time at the console should increase the number of calls which Telecommunicators can collectively handle in any given period, effectively permitting potentially more timely processing of calls and thus (marginally) reduced total response times. In reviewing related reports of individual occupancy rates, we noticed considerable variation in the total time during shifts which different individuals were available versus away from their console. In many instances the time off the phone was significantly longer than their permissible break times.

## Recommendations

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- We recommend that HEC management consider assigning a number of Senior Telecommunicators within the system on each shift to handle both Fire/EMS and, during lulls in Fire/EMS calls, any Police call overflows. Many Senior Telecommunicators were promoted to that function from Police Telecommunicator positions and so can be effectively cross-trained in both functions without undue difficulty. The volume and frequency (distribution) of Fire/EMS calls is significantly lower than on the Police side but still requires a certain minimum headcount to allow for peak period call traffic. We observed that, as a result, the Senior Telecommunicators often have “quiet” call periods. Having some of these call handlers secondarily coded for Police calls should improve Police (emergency 9-1-1) call handling especially during sudden peaks and with the wider distribution should reduce individual workloads (calls handled per hour). Alternatively, based on the recommended staffing levels issued by the Government skill based routing should also allow the combined (Fire/EMS/Police) call handling to be performed with 1 or 2 fewer total headcount per shift or 5 to 10 roster headcount in total. Assuming an average cost of \$15 per hour, this represents an estimated annualized savings including burden of approximately \$200,000 from a reduction in headcount of one on each shift, or over \$400,000 if reduced by two. **(Appendix D-17):**
  - The several employees freed up through improved call handling times and cross utilization can be used immediately to alleviate existing staffing shortages, on either the Fire/EMS or the Police side. This should reduce the amount of mandatory overtime currently required, a benefit to both the existing employees and the Center. (Although the Senior Telecommunicators are higher paid, and should still be paid at their higher rate when performing Police Telecommunicator functions, this is still less than the overtime rate for Police Telecommunicators)
  - The Senior Telecommunicators who would become available could be deployed to create the nucleus of group for training as Fire/EMS Dispatchers, the Police Telecommunicators as Police Dispatchers or to free up additional Senior Telecommunicators to become Fire/EMS Dispatchers.
  - Note: At all times a minimum number of personnel should be dedicated solely to 9-1-1 to ensure virtually immediate responses to citizen calls. Similarly some Fire/EMS Senior Telecommunicator (profiles) should be coded in the switch to take Fire/EMS calls only to ensure some are always available for such calls.
- Owing to the effect on employees’ personal lives created by uncertainty over their work schedules, we recommend that in order to achieve an improved work/life balance, the HEC should alter the current 4 weeks scheduling process to a much longer timeframe. We recommend a process of three 12 week and one 16 week scheduling blocks that would begin in the first two weeks payroll period in January each year. The 16 week block is to accommodate the November/December/New

## **Recommendations**

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Years day holiday period and potentially allow for a more equitable distribution of time off for holidays during this period. Each scheduling block should be distributed to employees no later than 4 weeks before its effective date.

This should provide employees with much improved advance notice of their upcoming work schedule and allow them to schedule personal events accordingly. This should have multiple positive effects such as:

- Reducing unscheduled absenteeism as employees can properly plan personal events around their work schedules.
- Due to a reduction in absenteeism, the need for mandatory drafting of employees to work unscheduled overtime should be vastly reduced.
- Morale should be greatly improved due to the combination of reduced last minute overtime and the ability for employees to attend personal events outside of work and achieve an enhance work/life balance.
- Employees are paid time and a half for overtime. A reduction in overtime should result in significant cost savings to the HEC.
- Currently, it takes a significant portion of HEC administrators' time to generate the schedule every 4 weeks. While it may take somewhat longer to schedule a 12 or 16 weeks period rather than 4 weeks, a economy of scale should be achieved. Moreover, the time-savings generated by only needing to completely generate the schedule 4 times instead of the current 12-13 times a year should free up management and administrative personnel for other tasks.

We recognize that within the 12 or 16 weeks blocks, changes may still need to be made to the schedule due to employees out on FMLA, suspension, or employee turnover. However, scheduling changes due to these reasons are a continuous process and should be no more, and perhaps even less, onerous than they are under the current process.

- We also recommend that management clearly define and communicate its policy concerning drafted employees' ability and responsibility to make alternative arrangements for such outside personal commitments as childcare. We noted that HEC management's policy is to allow drafted personnel to return home to secure alternative childcare arrangements, but in practice they are required to do so from the Center.

### **Analysis of Call Handling Activities and Staffing Levels**

#### End-to-End Response Time

- We recommend that call handling time be evaluated within the context of total response time, i.e. from receipt of the 9-1-1 Call until the first respondent arrives on

## Recommendations

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the scene. While we agree that considerable attention should be paid to minimizing call-handling time, management's primary focus should be to ensure that the completeness and accuracy of the related information gathered is not compromised.

Based on feedback from classified personnel in the field, informational content is usually considered more crucial than its speed of delivery. Although every second may be critical in an emergency situation, our review of total end-to-end response time indicates that identification and assignment of an available unit and its subsequent travel time to the scene constitute the majority of total response time. Combined these times range from 62% of the total 7.9 minutes citywide average in 2004 on Police Priority 1 calls to 70% and 75% respectively on Fire and EMS calls of 7.2 and 10.7 minutes. In 2004, the time taken to capture information averaged 2.6 minutes on Police calls and 1.8 and 1.9 minutes on Fire and EMS. This equates to a low of 18% of total response time on EMS calls to a high of 33% on Police Priority 1 calls (but dropping to 21% on Police Priority 2 calls).

### 10 Digits Calls

- We recommend that HEC management establish an automated IVR to handle the 10-digit Police Calls. These calls currently constitute as much as 45% of all Police calls handled (**Appendix D-1**). Headcount of approximately 69 Police Telecommunicators and 6 Senior Telecommunicators should be freed up if all 10-Digit calls were handled automatically via an IVR. However, in practice, a significant number of 10 Digits calls also result in the dispatching of field units. Conservatively assuming that only 80% of Police 9-1-1 calls are dispatched, then the balance of calls sent to dispatch are comprised of 68% of the 10 Digits calls. These calls could still require a number of agents to handle them, reducing the overall headcount savings. Some of these calls may constitute non emergency calls which may not require a unit to be dispatched immediately and follow up could be scheduled directly via local sub-stations. Assuming that all calls of a 9-1-1 nature are transferred on to 9-1-1 Police Telecommunicators (albeit it at a potential savings of 20 seconds per call of avoided 9-1-1 Telecommunicator time), estimated payroll savings from automation are \$1 million. If only Priority 1 through 3 equivalent calls were transferred, annual savings should be approximately \$2.1 million. (**Appendix D-18**)
- Although the Fire/EMS call volumes are significantly lower, driving less potential roster headcount savings of only 1 to 2 personnel per shift, if they could be managed via the same IVR as Police 10 Digits calls, this could generate additional savings of \$200,000 per annum. (**Appendix D-18**)
  - Given HEC's current staffing shortages, the Police Telecommunicator and Senior Telecommunicator headcount saved can be used to alleviate staffing shortages across 9-1-1 calls. The IVR should also improve customer service by efficiently routing their call to the appropriate agent or non-emergency agency and offering tailored self-service through scripting. Although not

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precisely quantifiable, only a small fraction of these are believed to be Code 1 or 2 emergencies (most people tend to call 9-1-1 rather than look up the 10 digit number); some calls constitute other lower priority situations, which still require a field unit to be dispatched. By use of the appropriate scripting, management can redirect the calls to best resource to address the citizen's needs.

- By use of the appropriate scripting, management can redirect the calls to best resource to address the citizen's needs. This includes directing emergency calls to a live 9-1-1 Telecommunicator or directly to appropriate Fire/EMS or Police Telecommunicator. Other inquiries e.g. regarding City jail, traffic court, other City (3-1-1) services etc. can generate a recording of the requisite phone number and for some services also automatically route the call to that number.

### Language Line

- We recommend that management increase immediately the number of bilingual Spanish-speaking Telecommunicators and Senior Telecommunicators who interact directly with the public. We suggest that management both reclassify and deploy as bilingual any eligible current Spanish-speaking Telecommunicators (including provision of requisite premium) as well as actively recruiting bilingual Spanish speakers for all positions. The Center currently uses the services of a language line to translate calls from non-English speakers. Total related costs in 2004 were almost \$400,000. Our analysis indicated that 55,125 calls or 98% of all calls handled were for Spanish-speaking callers. Although it is difficult to predict call distributions exactly, these calls could potentially be handled by the addition of as few as one Spanish speaker per shift or 5 additional headcount per functional area. Based on the \$75 monthly premium paid to bilingual speakers, and even adding the recommended several additional speakers to ensure coverage during peak evening calling periods, this should generate annual savings of approximately \$375,000. (**Appendix L-1**) We noted that a number of HEC call handlers with whom we spoke appear to be bilingual in Spanish but are not currently designated as bilingual call handlers.

### Field Unit Response

- We recommend that dispatchers assign Priority Code 3 and 4 directly to specific patrol units and monitor unit availability to ensure that these calls are answered in the sequence received and on a timely basis. Currently field officers are essentially able to cherry-pick calls should they choose to do so. To assist the call center dispatchers in this practice, we also recommend that HPD prepare a schedule of the expected time required in the field to resolve each type of call and which dispatchers can use as a tool for identifying when officers out on a call should be imminently available. This tool should also enable dispatchers to follow up with officers whose calls exceed the expected duration in case the local situation has deteriorated or the officer requires additional assistance (but has lost

## Recommendations

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radio contact or suffered personal injury). We further recommend that HPD management consider monitoring the individual officers' general adherence to such time frames in order to help ensure officer availability.

- Although Police patrol unit strength and citywide allocation are not within the scope of this engagement, there is an apparent shortage of officers available to respond on a timely basis to other than Code 1 and Code 2 calls. We recommend that the City conduct an independent review of this issue and determine potential improvements which address faster, cost effective responsiveness to those incidents assigned lower priority but which still constitute significant and legitimate citizen emergencies. The most significant and potentially easiest factor to improve is dispatch queue time; the time a call is held in dispatch pending availability of an officer in the field:
  - Call center processing time is consistent regardless of call priority. Police travel time on non Code 1 (lights and sirens) calls is fairly consistent. Queue time is the single largest variable. (Note: dispatchers need to keep a certain number of units per beat or district available at all times to respond immediately to Code 1 and 2 calls.) On average throughout 2003 and 2004, the queue time on Code 3 calls was almost 18 minutes and constituted 62% of total response time, compared to 3 minutes, or 25%, respectively, for Code 2 calls. **(Appendix E-1)**
  - Two primary ways to improve queue time are to deploy additional officers in the field and to reduce the time spent on individual calls. Although each call is unique, key aspects of each type of call are common to those calls. The response time to Code 3 calls could be improved by establishment of an expected norm and close monitoring (over several shifts) by the respective HPD management of the time spent on each type of call compared to the HPD determined standard.
  - We understand that all identified probable DWI offenders are taken to the central downtown facility for formal confirmation and subsequent booking into the city jail. During rush hour periods in particular – which is also one of the periods with highest incidence of 9-1-1 Police calls – the related transporting, booking and associated documentation and data entry process can easily take officers in outlying districts out of commission for as much as 25%-50% of their shift.
  - In addition the City should evaluate whether the resultant delay in administering formal testing (i.e. by breathalyzer) may expose the City to potential liabilities should someone initially appearing to be over the legal limit subsequently clear sufficient alcohol to legally comply. We suggest that the City and any independent reviewers evaluate the possibility of booking the potential offender at suburban stations and having dedicated transportation service collect and transfer confirmed offenders to the central jail at regular

## **Recommendations**

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intervals, thereby freeing up the local officers to serve in their assigned district. The use of dedicated transportation should also enable the Department to leverage economies of scale in the use of personnel and equipment resources.

- The City and any independent reviewers should evaluate processes, including related interactive linked technology, for officers to capture incident data once versus the current need to complete several hard copy documents and enter data into multiple different electronic City systems for some events e.g. DWI.
- We recommend that a light or flag be placed on each console position for use when an agent requires assistance from a Liaison Specialist.

### **Information Technology Infrastructure and Support**

- The City should establish a 24 hour 7 days a week Help Desk on site at the Center. Although the Center operates on a 24 hour 7 days a week basis, any after-hours response is currently, dependant on the functionality of a single cell phone provided to the individual on call. In some instances, this individual is not the specialist in the problem area, but a single point of contact to identify and contact that specialist. Some personnel felt that they were not sufficiently well trained on the systems to properly respond to requests. The 24 hour 7 days a week Help Desk should be staffed as appropriate using a combination of IT Department personnel and outside vendors or outsourced IT services organizations. This should ensure that the requisite support personnel are immediately available thereby preventing or reducing actual downtime. The physical presence of such support personnel on site may improve general perceptions within the Center of systems reliability and uptime.
- Management needs to establish a career path for IT personnel and reduce the constant threat of disruptions to their home life. The thin span of technical coverage leaves the Center particularly susceptible to a sudden lack of requisite expertise arising from mass sickness or exodus of personnel.
- Management should evaluate the cost benefits of maintaining a City or vendor owned inventory of essential spares on site to reduce parts related downtime. IT employees are told that when system problems arise, they are to only utilize the manufacturer warranty rather than troubleshoot the problem themselves. However limited spares are maintained and service contracts with key vendors are for next business day, not 4 hours, replacement service. By working with its primary vendors to establish both an inventory of most common and critical spares and staffing for a 24 hour 7 days a week on-site facility, HEC may be able to reduce the risk or length of any downtime.

## Recommendations

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- Management should ensure that the IT Department has the requisite equipment and technical training to support the Center systems:
  - The IT group relayed that they are short on the equipment needed to test and perform preventative maintenance on the CAD system. Their responsibilities also extend to various Fire and Police sites around the City. However, they only have limited tools and two repair vans to support these multiple responsibilities.
  - We understand that many IT personnel do not believe they have received proper training on the systems they are responsible for maintaining. Vendors have offered to provide free training on their systems if the City pays the plane and hotel fares for the HEC employees to attend. The City should leverage such opportunities to help provide the necessary training, which HEC IT personnel require to maintain 24 x 7 availability of critical infrastructure.
- The City should maintain a pro-active media communications program to ensure that local media receives an accurate and balanced account of any and all downtime. Members of the IT group believe that the media has not accurately portrayed the degree of system malfunctions, but rather has overstated the effect. Although a recent independent report (by the MITRE group) indicated that the CAD system is up 99.8% of the time, a perception has been created that the system frequently goes down and puts the public at risk. Members of the IT group communicated that the media has blown the system downtime out of proportion and distorted the effect of the overall down time. Employees in several focus group meetings indicated that some related miscommunications should be attributed to disgruntled employees, some of which are allegedly frequent or perpetual absentees.
- IT Management should establish clear policies in several areas, including:
  - Overtime compensation. Specifically this includes policies covering after hour emergencies resolved remotely by IT personnel often at a disruption to their personal life. We learned that individuals receive overtime compensation when they physically drive to the Center to solve a problem, but if they are able to solve the problems remotely, they encounter overtime approval issues, even though it can still take them several hours in the middle of the night to solve, potentially penalizing them for being efficient.
  - Preventative maintenance. There does not appear to be a formal preventative maintenance schedule; we learned that this seems to rely more on senior management's findings from walking around in the PSAP.
- The City should coordinate its IT support activities with other parties at the Center, including ensuring immediate 24 hour 7 days a week access to equipment

## **Recommendations**

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and systems on which the City relies. The facility also contains separate IT equipment owned by Greater Harris County (GHC), which we understand funds a part of the emergency call receipt and handling costs. The Center's IT personnel do not have access to all of Greater Harris County's locked equipment locations on site. We further noted similar IT equipment owned by GHC and the City but from different manufacturers. The City could potentially reduce its future IT costs by coordinating its and GHC's equipment maintenance and replacement purchases, and by selecting common vendors. This should also reduce the cost and complexity of spare parts inventories required.

- The City should consider establishing a single centralized IT office empowered with oversight and support responsibilities for all IT systems on which the City relies to deliver any emergency response. A dedicated Chief Technology Officer should be assigned to direct this consolidated office of IT support over all City Emergency Response Services. The City is reliant upon several different IT systems to ensure smooth delivery of end-to-end emergency response services, which are not under the direct control of the Center's IT Department. These include on-site systems belonging to and maintained by Greater Harris County as well as other City Departments. We also heard several times of IT issues related to equipment located elsewhere or owned by other departments, e.g. a HPD server downtime, which not only impact the Center's delivery capabilities, but are also perceived as a Center IT problem.
- Management should evaluate the location and quality of mission critical infrastructure equipment. In touring the Center's IT facilities, we observed instances where HVAC and temperature sensitive IT equipment are placed in the same room. In one location, the drip pan for the HVAC overflow is suspended directly above mission critical computer equipment. We also learned that core cabling in the Center is unshielded apparently rendering it susceptible to interference.

### **Facility Security and Disaster Recovery**

- We recommend that the Center prepare a formal business disruption and continuity plan in the event that the Center becomes disabled for any considerable period of time i.e. such that employees could not physically provide emergency response services at the Center. This should include the identification of a separately located back-up facility or capability, detailed procedures for transition of emergency response functionality to that entity in the case of such an eventuality, and regular periodic testing of those procedures in a simulated environment.
- We recommend that the Center enforce a "no tailgating" policy for both vehicles entering the facility grounds and for individuals entering the secured areas of the building.



**Houston Emergency Center  
Results of Focus Groups**

One of the significant information gathering steps included in our approach to this performance audit included the scheduling and conducting of facilitated focus group sessions with operational unit employees to assess operational functions and performance.

Twenty focus group sessions were conducted between March 8<sup>th</sup> and March 18<sup>th</sup>. Each focus group was a voluntary 2-hour meeting conducted within comparable peer groups (supervisors were not included with subordinates and dissimilar functions were not combined into one group). Individual anonymity was maintained so that, while notes were taken in order to capture key identified issues, names/sources were not attributed to any specific individuals. In most instances, the sessions took place outside normally scheduled work hours, usually right before or after a shift and call-takers were paid overtime for their participation in the focus groups.

The following Issues Matrix summarizes the issues captured during the focus group sessions. Issues are broken down into 18 different categories and similar issues that were discussed within different groups are checked accordingly. These issues are the items raised by the respective groups and reflect their perceptions regarding the Emergency Response Center environment.

**HOUSTON EMERGENCY CENTER  
Issues Matrix**

Appendix A-1

	Call-takers/Dispatchers					Supervisors/Management/IT				
	A	B	C	D	E	F	G	H	I	J
	911 Tele	Pol Tele	HPD Disp	HFD Disp	Sr. Tele (Fire/EMS)	911/HPD/HFD Supervisors	HPD Classified	HFD Classified	Admin Support	IT
<b>STAFFING/HIRING</b>										
<b>Staffing</b> - There is not enough staffing to cover shifts, breaks, and for bathroom relief)	X	X	X		X	X	X	X		
<b>Vacancies</b> are not addressed and filled timely by HEC management.	X	X	X		X	X	X			
<b>Scheduled Overtime</b> - Employees are solicited to sign-up for overtime due to staffing shortages. There is no cap or maximum amount of overtime that can't be exceeded per work week.	X	X	X		X	X	X			
<b>Mandatory Drafting</b> - Employees are required to work unreasonable amounts of overtime due to staffing shortages, employees on FMLA, and employee suspensions. - Employees are required to work while exhausted and not very alert - Depending on the shift, 6 to 8 employees are drafted daily.	X	X	X		X	X	X			
<b>Hiring</b> - the City takes too long to hire personnel. Background checks take too long.	X	X			X	X		X		
<b>Supervisors are not involved in the hiring process.</b>						X				
<b>Eliminate problem employees</b> - Often unable or takes too long to eliminate bad employees.						X	X			
<b>MORALE</b>										
<b>Employee productivity and morale</b> is negatively affected due to the mandatory overtime and drafting the put downs and criticisms by supervisors and management - lack of any positive feedback from management.	X	X	X	X	X	X	X			
<b>Employee Penalties</b> - Employees are penalized (written up) if they do not adhere to the mandatory drafting requirements.	X	X			X					
<b>Frivolous Internal Affairs Department (IAD) complaints</b> - initiated by management against employees			X							
<b>Restroom Breaks</b> are discouraged - Employees are disciplined for too many or too long restroom breaks.	X	X	X							
<b>Management often focuses on petty issues</b> at the expense of more pressing issues - Type of cup to drink from - Type of chair to sit in	X	X	X	X	X	X				

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Issues Matrix**

Appendix A-1

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	911 Tele	Pol Tele	HPD Disp	HFD Disp	Sr. Tele (Fire/EMS)	911/HPD/HFD Supervisors	HPD Classified	HFD Classified	Admin Support	IT
<b>Employee turnover</b> There is increased employee turnover due to high job stress, mandatory overtime and drafting, and constant negative feedback from management.	X	X	X			X	X			
<b>Lack of job security</b>			X							
<b>WORK PERFORMANCE</b>										
<b>Lack of Professionalism by Employees</b>					X	X	X			
<b>Calls processed with incomplete/inadequate information</b> - Call takers pressured to process calls within 60 seconds often times with incomplete/inadequate information - Management emphasizes quantity of call taken versus quality of information processed Call-backs are made frequently due to insufficient information obtained by the call-takers	X	X	X		X		X	X		
<b>QUEUE Delays</b> - Many calls (non-priority calls) are placed on hold because there is not enough officers to dispatch.			X							
<b>Supervisors provide little assistance handling calls</b> - In some instances, supervisors don't appear to be trained to assist call-takers in processing calls.		X								
<b>EMPLOYEE COUNSELING/GRIEVANCES</b>										
<b>The "Employee Representative" was hand selected by HEC management</b> - The Employee Representative does not really represent employee interests	X	X	X		X					
<b>Employee Relations Manager (ERM) does not represent employee interests.</b> - The ERM imposes employee discipline/suspensions as opposed to counseling and representing employee interests.	X				X					
<b>HEC Leave Policies (funeral) are not applied consistently with other City department policies.</b>					X					
<b>EMPLOYEE INCENTIVES</b>										
<b>Lack of Employee Recognition</b> - There is no reward for perfect attendance or a job well done	X	X	X		X					

X - comment raised by this group

**HOUSTON EMERGENCY CENTER  
Issues Matrix**

Appendix A-1

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	911 Tele	Pol Tele	HPD Disp	HFD Disp	Sr. Tele (Fire/EMS)	911/HPD/HFD Supervisors	HPD Classified	HFD Classified	Admin Support	IT
<b>Lack of work incentives</b> to boost morale of employees	X	X	X			X	X			X
<b>PERFORMANCE REVIEWS</b>										
<b>Unfair variables used to rate employees</b> on their Employee Performance Evaluation (EPE)	X		X		X					
<b>Employee Performance Evaluations (EPEs)</b> - HEC supervisors are discouraged from rating employees as "Outstanding". Employees are unable to attain the "Outstanding" rating.	X	X			X	X				
<b>EPE Ratings given by supervisors without sufficient knowledge of employees work performance (due to HPD Supervisor job rotations, etc.)</b>	X				X		X			
<b>HEC management proposes employee performance be evaluated based on attendance versus seniority</b> - HEC Management proposes employee performance be evaluated based on attendance versus seniority.	X	X	X		X	X	X			
<b>Employees are penalized on their Performance Evaluations</b> - taking too long to obtain needed information to process calls - taking too long as a bilingual call-taker obtaining necessary information from a Spanish speaking caller		X								
<b>PAY</b>										
<b>Disparity in Pay</b> - The HEC pay scale is not based on responsibilities. 911 Call-takers get paid the same as Police Call-takers HPD Dispatchers get paid the same as Fire/EMS Call-takers.	X	X	X	X	X		X	X		
<b>Salaries need to be increased</b>		X		X	X		X			
<b>Work without Pay</b> - Employees (HPD Dispatchers) are required to work an additional 30 minutes more (without pay during roll call attendance) than other HPD civilian personnel.		X	X							
<b>No additional compensation for bilingual speaking</b>					X					
<b>PROMOTIONS</b>										
<b>Lack of career path/promotional potential for employees</b>		X			X		X			X

# HOUSTON EMERGENCY CENTER Issues Matrix

Appendix A-1

	Call-takers/Dispatchers					Supervisors/Management/IT				
	A	B	C	D	E	F	G	H	I	J
	911 Tele	Pol Tele	HPD Disp	HFD Disp	Sr. Tele (Fire/EMS)	911/HPD/HFD Supervisors	HPD Classified	HFD Classified	Admin Support	IT
<b>Promotions</b> - Promotions are not based on merit or ability - Promotions are not determined fairly. Some bias and favoritism exists.		X			X					
<b>TRAINING</b>										
<b>Lack of supervisor training</b> Supervisors need training to effectively manage employees	X	X		X	X	X			X	
<b>Inadequate Training and/or Cross-Training</b>	X	X		X	X	X	X			X
<b>Lack of Adequate Training Manual</b> - No useful System users manual exists - Had to figure out system on own.				X						
<b>POLICIES AND PROCEDURES</b>										
<b>Conflicting Policies and Procedures</b> - There is no Consistency in rules/policies and procedures and the application of those rules/policies.	X	X	X	X	X	X				
<b>Policies and procedures difficult to understand.</b> Need clearly defined policies and procedures.		X	X	X	X	X		X		X
<b>HEC FMLA policies not in compliance with Texas Workforce Commission</b> - The TWC has already indicated that HEC FMLA policies are not in compliance with their rules/regulations		X			X					
<b>FLSA violations by management</b> - IT personnel working on call are not compensated with call pay, but receive comp time instead.										X
<b>ORGANIZATIONAL STRUCTURE</b>										
<b>No clear cut power structure</b> - There is no clear cut power structure at the HEC in terms of who makes decisions. There are too many "chiefs" and no indians.	X	X	X	X	X	X	X	X		X
<b>Separate Control of Entities at HEC</b> - There needs to be separate control of entities (HEC, HPD, and HFD)		X	X	X			X			X
<b>An adversarial relationship exists</b> between the various factions at the HEC		X	X	X	X	X	X	X		
<b>HFD to be civilianized</b> - Management is trying to civilianize the HFD side of HEC.				X	X			X		

**HOUSTON EMERGENCY CENTER  
Issues Matrix**

Appendix A-1

	Call-takers/Dispatchers					Supervisors/Management/IT				
	A	B	C	D	E	F	G	H	I	J
	911 Tele	Pol Tele	HPD Disp	HFD Disp	Sr. Tele (Fire/EMS)	911/HPD/HFD Supervisors	HPD Classified	HFD Classified	Admin Support	IT
<b>Police Telecommunicators report to HEC Management as opposed to HPD management</b> Police Telecommunicators (who are now HEC employees) wish to be placed under HPD.		X	X				X			
<b>MANAGEMENT</b>										
<b>Ineffective Management techniques</b> - There is "Management" by intimidation	X	X	X	X	X					X
<b>Supervisors are not approachable</b>	X	X			X					X
<b>HEC Management</b> - The overall management of the HEC should include input and representation from 911, HPD, and HFD (equally).		X	X			X		X		
<b>Lack of "Team Environment"</b> - Management does not promote a "Team" environment.	X	X	X	X	X	X	X	X		X
<b>Management is out of touch with personnel</b> - Many of the employees have never been formerly introduced to the HEC Director or Assistant Director.		X			X					
<b>Management is non-responsive.</b> Not open to employee suggestions. <b>Need to eliminate HEC Management.</b>	X	X			X	X	X			
<b>COMMUNICATIONS</b>										
<b>Discrepancies in communications</b> exists from Upper Management and Supervisors to employees	X	X		X	X					X
<b>Ineffective/negative management communications</b> during daily roll calls	X	X	X		X					
<b>Lack of Management's concern</b> for Employee personal issues (i.e., personal illness, sick kids, sick family member)	X	X	X		X					
<b>Communications with Management</b> - Employees do not feel they can discuss problems/issues with supervisors and/or management without fear of retaliation.	X	X	X		X	X				X

# HOUSTON EMERGENCY CENTER Issues Matrix

Appendix A-1

	Call-takers/Dispatchers					Supervisors/Management/IT				
	A	B	C	D	E	F	G	H	I	J
	911 Tele	Pol Tele	HPD Disp	HFD Disp	Sr. Tele (Fire/EMS)	911/HPD/HFD Supervisors	HPD Classified	HFD Classified	Admin Support	IT
<b>Lack of Communication between Police Telecommunicators/Police Dispatchers and HPD Officers</b> - Police Telecommunicators are discouraged from talking with the HPD dispatchers - The HPD Dispatchers are discouraged from communicating/developing a repoire with the street officers they work with... which could improve communications, etc.			X				X			
<b>There is no Complaint Resolution Committee.</b> There is no grievance committee to settle disputes. There is no process for employees to respond to complaints.						X				
<b>Human Resources is not an effective employee resource</b> to address or solve problems	X		X		X					X
<b>HEC BUDGET</b>										
<b>Who ensures \$ received from Greater Harris County for the HEC is used appropriately</b>					X					
<b>VACATION/SICK LEAVE USE</b>										
<b>Vacation Use Discouraged</b> - Unable to schedule and use vacation when needed	X	X	X		X	X				
<b>Abuse of Sick Leave/Family Medical Leave Act (FMLA) by employees</b>	X	X				X	X			
<b>Sick employees forced to work sick</b> due to employees penalized for any time taken off.	X	X		X				X		
<b>Inadequate FMLA review and approval process</b> - Inadequate system in determining who gets approved for FMLA	X	X			X					
<b>Inconsistent application of FMLA regulations</b>	X	X			X					
<b>IT INFRASTRUCTURE &amp; SUPPORT</b>										
<b>CAD System Problems</b> - Windows based CAD system shuts down often (sometimes it takes anywhere from 30 seconds to 5 minutes to come back up due to system GUIs), works slow; needs memory upgrade. - Need system back up for when the CAD System goes down		X	X	X	X			X		

**HOUSTON EMERGENCY CENTER  
Issues Matrix**

Appendix A-1

	Call-takers/Dispatchers					Supervisors/Management/IT				
	A	B	C	D	E	F	G	H	I	J
	911 Tele	Pot Tele	HPD Disp	HFD Disp	Sr. Tele (Fire/EMS)	911/HPD/HFD Supervisors	HPD Classified	HFD Classified	Admin Support	IT
<b>Untimely notification of CAD System Outages</b> - CAD System users are not properly/timely notified of CAD system downs/maintenance/modifications.				X				X		X
<b>CAD System not user friendly</b> - The system is very cumbersome and very difficult to use. Employee input was not solicited when the system was designed.		X	X	X	X	X				
<b>CAD System Information not updated timely</b> - Information in system (addresses, etc.) may not be updated timely		X	X		X					
<b>CAD System Design favors one group over another</b> - CAD System is oriented to HPD not HFD; all commands are HPD oriented.				X				X		
<b>CAD System Vendor Non-responsive</b> - Vendor takes too long to fix system problems										X
<b>HEC is short on equipment to support and maintain the computer system</b>										X
<b>More Tach Channels needed</b>				X						
<b>SECURITY</b>										
<b>Potential Security Breach</b> - Employees, and visitors are allowed to tailgate without showing proper ID when entering the HEC secured parking lot.					X					
<b>No security provisions to prevent an armed employee from accessing HEC premises</b>					X					
<b>DISASTER RECOVERY PLAN</b>										
<b>Inadequate Disaster Plan</b> Need to provide for "disaster" situation (a backup plan.				X				X		X



**Houston Emergency Center  
Compliance Benchmark Survey  
Conducted by Strategic Management Systems, Inc.**

May 19, 2005

Laurie Robinson  
Jefferson Wells International  
Director, Internal Controls  
1000 Louisiana Street, Suite 5300  
Houston, TX 77002

REF: Compliance Culture Survey Results (Employee Survey I)

Dear Ms. Robinson:

Enclosed herewith is the report of findings from the first Houston Emergency Call Center ("HEC") Compliance Culture Survey that benchmarks compliance. The overall response rate among the 397 employees surveyed is 48% (189 responses), which is well within the range of responses needed to permit high confidence in the results. The survey's overall mean score is 2.63. This is below 3.00, which is the point of neutrality for the survey. This indicates that the respondents' perceptions are more negative than predicted by the neutrality model. In addition to general trends sketched by the overall mean score and panel means, the responses identify areas of relative strength and those issue areas that warrant attention and signal opportunities for improvement.

The SMSInc database for the Compliance Benchmark Survey™ is extensive and includes a surveyed population well over a half million employees. As a result, individual HEC item and panel scores can be compared to this universe. The overall index score is derived from the adjusted summation of all the 70 individual item scores that comprise the survey instrument. The universe of the database index score currently stands at 234. Any score lower than the present value is below the universe average. The HEC index score is 185, which is well below the industry score. The details of the report provide several levels of analysis to aid in interpreting these results.

There are seven categories or panels in the survey that measure the different compliance dimensions of the work environment. The panels consist of ten items each for a total of 70 measured elements in the survey. The seven dimensions measured are:

- (1) Personal Job Satisfaction;
- (2) Compliance with Laws and Regulations;
- (3) Quality of Services;
- (4) Employee Communication;
- (5) Management Practices;
- (6) Human Resources Practices; and
- (7) Financial Management.

These panel means range from 2.37 for Compliance with Laws and Regulations to a high of 3.11 for Financial Management. HEC scored above the neutrality mark of 3.00 in only that one panel.

Another level of analysis consists of four compliance *themes* that collect data across all seven of the panels. These cross-cutting themes are designed to focus on employee compliance perceptions from a different

perspective than that of the explicitly categorized panels. Each of the themes relates to the critical elements of an effective Compliance Program. The four themes include:

- (1) Adequate Training/Guidance of Employees;
- (2) Organization Commitment to Compliance;
- (3) Reporting and Resolution of Problems; and
- (4) Employee Trust/Loyalty.

Each of the 70 items has been separately analyzed in the report, and close examination of each is important to understand the full dimension of the survey and the compliance theme results. Any result significantly greater than the point of neutrality (3.00) should be considered a strength of the department. Conversely, any score that dips significantly below that neutrality mark should be considered a warning signal that there may be problems for management to address. In addition, any score below the department's overall average may be interpreted as a signal to improve that particular issue area to match the department standard. Of the 70 individual mean scores, 15 are higher than the neutrality level of 3.00, while 54 are below neutrality. The remaining item is not significantly different from the value of neutrality.

### DETAILS OF THE COMPLIANCE SURVEY REPORT

A workplace where employees derive great satisfaction from their work tends to have better morale and stronger loyalty among its workforce. The panel that focuses on **Personal Job Satisfaction** has a panel score of **2.47**, which is considerably below the point of neutrality. HEC shows mixed scores in this panel, and management should focus attention on the weaker marks.

The **Compliance with Laws and Regulations** panel tests employee perceptions of the department's adherence to policies, laws, and regulations, as well as the procedures for reporting violations. This panel mean is **2.37**, which is also well below the point of neutrality. All ten of the items are at or below neutrality, which suggests that confidence in management's reliability and commitment regarding compliance matters warrants reinforcement.

Respondents perceive HEC as providing a lower quality of services than that of its competitors. The average of the means for the panel **Quality of Services** is **2.71**, which although slightly better than the two previously noted panels, is still below the neutrality point. Employees will tolerate considerable stress and forgive management weaknesses so long as they believe the department is effective.

Communication is another key element of an effective department. The **Employee Communication** panel receives a score of **2.57**, which is also below neutrality.

The **Management Practices** panel rate is also below the point of neutrality with a panel score of **2.52**. The weak item scores in this panel emphasize that management's commitment to the department needs to be made more evident.

After the supervisors, the first line of defense for problem resolution among employees is human resources. Employees should be willing to take any concerns to human resources without fearing for their job security, and they should have confidence that human resources can and will address their concerns. The overall result of the panel on **Human Resources Practices** at **2.77** is well below the point of neutrality but not as negative as the other panel scores.

The **Financial Management** panel is designed to measure employee perceptions of the department's financial practices. This is the most positive of all the seven panels. Respondents gave a positive mean score of **3.11**.

The **Financial Management** panel is designed to measure employee perceptions of the department's financial practices. This is the most positive of all the seven panels. Respondents gave a positive mean score of **3.11**.

On the cross-cutting measurement of employees' perceptions regarding the theme of *Adequate Training/Guidance of Employees*, the theme score is 2.55. This mark is below neutrality, and about the same as the other compliance themes. Further written guidance would be useful to help employees fully understand what is expected of them in the workplace.

The cross-cutting issues relating to *Organization Commitment to Compliance* provide a below neutral theme score of 2.58. Conducting reviews of current practices to identify and address compliance-related issues in a proactive manner will further evidence to employees HEC's commitment to compliance.

The theme of *Reporting and Resolution of Problems* receives a score of 2.60 which is also below neutrality. There is sufficient reluctance and fear of retribution and retaliation expressed for reporting serious concerns to reinforce the need for senior management to reassure employees and encourage reporting. Establishing a structure that encourages employees to report concerns internally rather than externally not only makes good business sense, but may also reduce the risk of government investigations. A director letter as part of a code would help to underscore HEC's commitment to non-retaliation for reporting problems. Other broadcast techniques to reinforce this message should be considered as well.

*Employee Trust/Loyalty* receives a score of 2.52, which is also below the neutrality point and indicates a weak foundation for the department. Employee trust and loyalty are of great importance to the department, as experience has shown that employees can be motivated to become external "whistle-blowers" when they do not trust the department or its management. Alternatively, employees may be motivated to external reporting out of a sense of loyalty to the department. A balance between these two factors lies in the confidence of reporting through internal channels. An effective hotline is critical to this issue. However, a hotline is only one feedback loop between employees and the department. It is recommended that many other such feedback loops be established to reinforce this channel, including a Compliance Program, employee compliance training, new employee orientations, exit interviews, post-employment contact, newsletters, etc.

Overall, HEC has areas for improvement. With the right commitment and efforts, HEC can work towards a more solid and effective department. HEC should focus attention on improving the weaker elements in this survey. It is important that the details of the report be examined, particularly the results of each item. Special attention should be given to those scores and their attendant issue areas that are at or below neutrality or relatively weak within a panel. Refocusing and re-evaluating the current situation, and taking decisive steps toward remediation, should lead to improvements. The development and implementation of a Compliance Program might successfully address many of these issues. The emphasis of a Compliance Program's implementation should be directed towards successfully addressing these critical issues. For clarification or amplification of findings and suggestions included in our report, please feel free to contact me at (703) 535-1411 or Mary Lundregan at (703) 535-1421.

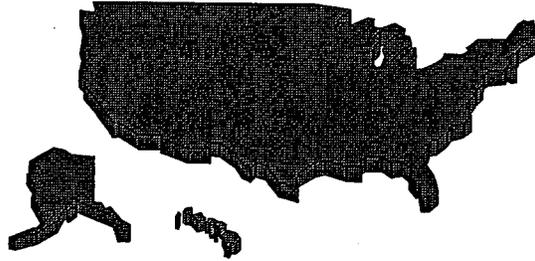
Sincerely,



Richard P. Kusserow  
President

Strategic Management Systems, Inc.  
112 S. West Street, Suite 200  
Alexandria, VA 22314  
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Fax 703.836.5255

Houston Emergency Call Center



Compliance Benchmark™ Survey

Confidential

Conducted by  
Strategic Management Systems, Inc. (SMSInc)  
May 2005



# Compliance Benchmark™ Survey

## *Overview*

### I. Objectives of the Survey

### II. Methodology: Interpreting Qualitative and Diagnostic Results

### III. Compliance Items Overview

### IV. Data Analysis

- Overall Findings
- Results by Panel
  - Personal Job Satisfaction
  - Compliance with Laws and Regulations
  - Quality of Services/Products
  - Employee Communication
  - Management Practices
  - Human Resources Practices
  - Financial Management

### V. Graphical Summary of Scoring Results

### Appendix A: Response Distribution for Aggregate and Divisions

### Appendix B: Panel and Overall Means for Aggregate and Divisions

## OBJECTIVES OF THE SURVEY

Strategic Management Systems, Inc. ("SMSInc") was engaged by Houston Emergency Call Center ("HEC") through Jefferson Wells to conduct an objective survey of the employee population in order to take a "snapshot" of the workplace environment. This survey focuses on measuring the overall perceptions and culture of HEC's employees on a number of issues as relates to them personally, their immediate work group, their supervisor and the management of the department. The results of this survey will assist the department by identifying strengths and opportunities for improvements in the workplace environment. This information can also be used to identify areas in need of greater attention, as well as those areas of strength that can be used as a foundation for improving the department. Additional surveys can benchmark progress and measure improvement in the department's culture.

The Compliance Benchmark™ Survey report presents employee perceptions with respect to seven dimensions, wherein each of the seven addresses a different compliance issue. The areas, also referred to as panels, selected and included in this survey are:

- (a) Personal Job Satisfaction;
- (b) Compliance With Laws and Regulations;
- (c) Quality of Services/Products;
- (d) Employee Communication;
- (e) Management Practices;
- (f) Human Resources Practices; and
- (g) Financial Management.

The instrument used was developed and validated by SMSInc under the guidance of Dr. Cornelia M. Dorfschmid, and is now maintained by and copyrighted to SMSInc. The evaluation, analysis, and validation of survey results were performed by a report team under the direct supervision of Dr. Dorfschmid and Richard P. Kusserow, President of SMSInc and former Inspector General of the U.S. Department of Health and Human Services.

The survey instrument was mailed to all 397 identified employees of HEC. Employees were divided into the following divisions for this survey: HEC A – 911 Telecommunicators (37), HEC B – Police Telecommunicators (87), HEC C – Police Dispatchers (70), HEC D – HFD Dispatchers (76), HEC E – Fire/EMS Telecommunicators (34), HEC F – 911/Police/Fire/EMS Supervisors (20), HEC G – HPD Classified Personnel (24), HEC H – HFD Classified Personnel (10), HEC I – HEC IT (21), HEC J – HEC Admin (18). Summaries of the data for each division can be found in Appendix A and Appendix B. Each employee was provided a copy of the survey and a stamped, self-addressed return envelope. Employees were asked to mail their completed surveys to SMSInc in Alexandria, VA. Of the N = 397 surveys distributed, n = 189 were returned. This resulted in an overall return rate of 48%, providing sufficient data to provide a high level of confidence in the results. Among the specific objectives of the survey are the following:

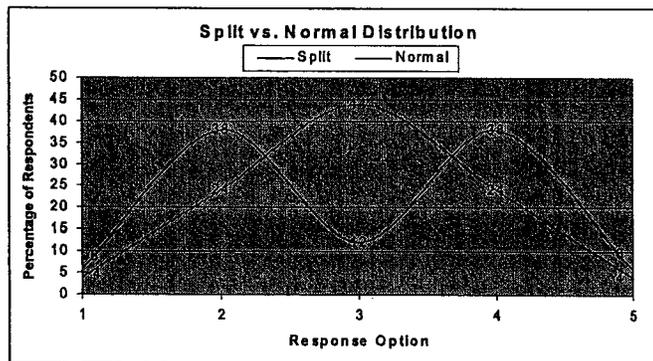
- Identify areas where special focus and attention should be provided in improving the overall compliance environment.
- Establish a benchmark against which progress can be measured.
- Begin gathering views from the perspective of employees on the effectiveness of HEC's management.
- Measure perceptions and morale towards department management and leadership.

- Identify factors and issues affecting attitudes and morale including: (a) delivery of quality services, (b) effectiveness of management, and (c) effectiveness of communication.

The full meaning, implications, and explanation of the results must be derived by other methods. Management might consider using focus groups as a way to provide additional insights as to the operational dynamics of the department. A training program could also be developed, in part, from the issues raised in Focus Group meetings and the design of the Compliance Benchmark™ Survey. The training has as an intended outcome to further discussion on the same seven issue areas included in the survey. A comprehensive operational compliance review of all of the department's major business activities, processes, systems, and operations should provide additional insights into the issues raised in this survey.

## METHODOLOGY: INTERPRETING VALUATIVE AND DIAGNOSTIC RESULTS

1. Respondent results are based on and analyzed with a numeric scale of agreement. The set of individual questions or items is grouped into seven issue areas, or *panels* (Personal Job Satisfaction, Compliance with Laws and Regulations, Quality of Services, Employee Communication, Management Practices, Human Resources Practices, Financial Management). Each is designed to complement, reinforce, verify, and validate findings. All questions offer the same pattern of multiple choice answers. Results are presented and discussed at three different degrees of aggregation: for each *individual* item or question within a panel; for each *panel* of questions or issue area as a whole; and for the *overall* survey across all items and all panels. In addition, a cross-section view is offered, wherein questions are grouped into four compliance *themes* (Adequate Training/Guidance of Employees, Organization Commitment to Compliance, Reporting and Resolution of Problems, Employee Trust and Loyalty to the Organization). These *themes* are designed to enhance the interpretation of the survey results.
2. Each item is initially ranked into five *categories*, using a Likert Scale model. Respondents are asked whether they “Strongly Disagree,” “Disagree,” are “Neutral,” “Agree,” or “Strongly Agree,” with the statement presented in each item. A sixth option, “Don’t Know,” is offered to respondents who feel they lack the knowledge needed to answer the particular question. The rankings of agreement levels are equated with a numeric scale where “Strongly Disagree” equals “1,” “Disagree” equals “2,” “Neutral” equals “3,” “Agree” equals “4,” and “Strongly Agree” equals “5.” The lower the score, the greater the level of disagreement with the statement. Conversely, the higher the score, the stronger the agreement. If low scores are reported for the items, they represent unfavorable results and high scores represent favorable results. Mean scores have been computed for each item along the numeric scale of 1 to 5. For each item and issue area a score of 3.00 is equivalent to neutrality. A score of 3.00 represents an average score on any item or panel. A score lower than 3.00 indicates a negative response, while a score higher than 3.00 represents a positive response as compared to neutrality.
3. With regards to neutral scores, it is important to recognize that some items with neutral scores can be the result of a mixture of sharply divided perceptions rather than predominately neutral perceptions. In the case of a neutral or near neutral score, it is especially important to examine the percentage of respondents agreeing (i.e., those that chose “Strongly Agree” and “Agree”) and disagreeing (“Strongly Disagree” and “Disagree”). Generally, if the percentage of respondents choosing “Neutral” is below 25% and less than 50% of respondents either are in agreement or disagreement, the distribution is considered to be split between opposing viewpoints. This is illustrated below:



4. It is important to note that the scores represented express respondent perceptions, not fact. Many respondent perceptions may not be accurate assessments of the actual policy or climate. In some cases, respondents might be “voting” their attitude about the specific issue or the department at large. The scores measure only the aggregated perceptions of items, panels, and the instrument as a whole. They provide insights, suggest implications, and offer questions about the work environment. In most cases, it is difficult, if not impossible, to provide a full explanation as to why employees responded the way they did. Finally, the number of those who chose not to return the survey must be considered as well.
5. Several items are *reverse-scored* items and are identified as such by an asterisk (“\*”). These items are constructed to ensure that respondents do not infer that a high number is always a “good” answer and vice versa. They are also designed to control for response set (the tendency to respond in a given pattern), halo effect (the tendency to respond to an item in terms of the “content” of the previous item/s), and the primacy effect (the tendency to respond in terms of the “content” of the first items in the survey). The appropriate measures for the averages of these items, the *reverse mean scores*, are computed based on reverse-scoring (i.e., answers under category One are reversed and placed under category Five, Two equals Four, and answers under Three, the central category, remain the same). To maintain consistency of the analysis, frequencies are also reversed for these items to create the frequency plots. When interpreting the relevant quantitative measures, one may then consistently infer that a high score is a positive or “good” result and a low number represents a negative or “bad” result.
6. Survey results are not compared directly against other individual companies. However, to draw conclusions as to how the results from this survey measure up against other companies that have used this survey, a general comparison against an index of compliance can be made. The index is composed of survey results of the same type and taken from a number of different companies that may be considered representative of the universe. The overall score level (i.e., sum of individual item scores) of the department is evaluated against the SMSInc survey database of over 500,000 surveyed population.
7. Management’s knowledge and experience with its operations places it in a better position to understand the many nuances and inferences arising from these findings. In reviewing the data of each panel and the individual survey items, as well as the cross section of compliance themes, it is important that management keeps in mind that, on a five-point rating scale, even small differences in the tenths position may be significant. Another factor to consider is the distribution of scores on each question and whether the response group is sharply divided on a particular issue.

## III COMPLIANCE THEMES OVERVIEW

This Compliance Benchmark™ Survey report provides analysis on several levels. Throughout each of the panels there are certain compliance *themes*, designed to evaluate in regards to areas of particular compliance concern. For each theme there are ten items, or questions, distributed throughout the survey which approach employee perceptions from a different perspective. The variation in the questions is designed to reinforce and validate findings. The four *themes* identified for specific overview analysis (that were not made explicit to the respondents in the survey) are:

- (1) Adequate Training/Guidance of Employees;
- (2) Organization Commitment to Compliance;
- (3) Reporting and Resolution of Problems; and,
- (4) Employee Trust/Loyalty to the Organization.

There are specific items directed at each *theme*, which are reinforced by secondary and supportive items. These cross-cutting themes also provide a good overview of the survey results. The reader should consult the details of the report to gain additional insight and greater specificity related to each of the theme issues. Any score that is at or below neutrality warrants some sort of program improvement plan. It is significant that HEC failed to score above the point of neutrality in any of these four panels, suggesting attention is needed in each of these areas.

**Adequate Training/Guidance of Employees [Items: 2, 14, 19, 21, 31, 32, 34, 37, 40, 54; Average Score: 2.55].** Respondent perceptions rate HEC below the neutrality value. The questions relating to this issue are designed to determine the level of confidence employees have in the direction provided to them in the conduct of their work. The accent is on written guidance. A poor overall result on this cross-section of questions would suggest the need for an effective Code of Conduct. It may also suggest ineffective communication of other policy documents. The weaker the result in this category, the stronger the need for corrective action. A Code of Conduct is stressed as the most important remedy, because it is the simplest and most direct method for explaining what is expected of employees. However, there are other means to improve performance, such as: (a) improvements in employee handbooks, such as the policies and procedures manuals; (b) first line management reinforcement of written guidance; (c) public posting of new directives; (d) periodic staff meetings to reinforce directives and written policies; and, (e) new employee orientation with regards to compliance issues. Critical to improving “Adequate Training/Guidance” is proper training that educates employees on the contents and importance of the Code of Conduct and, more importantly, on how it can be applied to actual situations in the work environment.

**Organization Commitment to Compliance [Items: 11, 13, 15, 17, 23, 26, 29, 30, 61, 69; Average Score: 2.58].** Respondent perceptions rate HEC below the neutrality value. These cross-section items are designed to measure employee perceptions as to the level of commitment towards compliance with applicable laws, rules, regulations, and their own policies. Generally, employees’ perceptions fairly accurately reflect the department culture. Thus, the higher (i.e., better) the score, the stronger the compliance culture is likely to be. Conversely, the weaker the score, the more vulnerable the department could be to violations of rules or regulatory standards. The best method to strengthen this area involves a “top-down” strategy: senior management must evidence to employees a commitment to compliance. There are various ways to accomplish this, including a compliance structure beginning at the highest levels of the department and extending through the executive leadership, with a senior official overseeing a formal Compliance Program. In addition, the executive leadership must evidence personal commitment to compliance with all applicable laws, regulations, and policies. This can be done partly through written assurances to employees of the department’s commitment to compliance, but must also include permission and encouragement for employees to bring to management’s attention violations or wrongdoings of any type. Employees must be assured that they can do this without retribution or retaliation. Furthermore, those who report problems should be able to do so without identifying themselves or, if they do so, should be given assurance of anonymity.

A critical step in providing credibility to these commitments will be reinforcement through training with active management participation. In addition, it is not sufficient for the department to be willing to address problems reported by employees: the department should have a proactive program to seek out and address weaknesses before more serious problems develop. Of course, the most important evidence of organization commitment to compliance will come from the department's methods of addressing problems and whether it follows through with credible actions. Rhetoric alone will not suffice.

**Reporting and Resolution of Problems [Items: 16, 18, 20, 43, 45, 51, 52, 53, 58, 62, Average Score: 2.60].** Respondent perceptions rate HEC below the neutrality value. This theme addresses the level of confidence in reporting problems to management. There are actually two distinct but related issues that affect this score, and both are trust factors. The primary concern is the level of confidence in reporting without fear of retribution or retaliation. The second issue revolves around whether employees believe that management would take appropriate remedial action if it learned of a problem. Employees will not ordinarily feel comfortable in reporting through the department if they fear being subject to retaliation or that their initiative will not make any difference. Employee confidence can only be strengthened by addressing both issues. Credible assurance that employees can report without retaliation or retribution must come from the highest levels of the department. Letters or printed policies can be posted, e-mailed, or distributed to reinforce the message. In addition, employees must be offered a secure method to report anonymously or confidentially outside the normal chain of command. This can be accomplished through a properly established employee Hotline, staffed by trained professionals. In addition, the department must demonstrate its commitment to act appropriately and in a timely manner on information received from employees. This commitment should be the major responsibility of the Compliance Office and, ultimately, can only result from the evidence of actions over a period of time.

**Employee Trust/Loyalty to the Organization [Items: 6, 8, 12, 22, 25, 28, 44, 50, 67, 70; Average Score: 2.52].** Respondents' perceptions of this theme score below the neutrality mark. A key to any successful organization is each employee's trust in both the organization and their co-workers. The cross-section items addressed under this theme measure employee perceptions of management's commitment to the workforce, as well as employee loyalty to the department. These issues are of great importance. Experience has shown that employees can be motivated to become external whistle-blowers when they do not trust their employer or management. Employees may also be motivated to report externally out of loyalty to the department. The latter are generally people who believe that the only way to help effect positive change and protect the organization from unaddressed wrongdoing is to use external forces. In either case, reporting through outside rather than established department channels often occurs due to the relator's belief that corrective measures are not likely to happen under current working conditions.

There are many ways to strengthen these issue areas, including the publication of a Code of Conduct that provides explicit permission for employees to report violations and the means to do so outside the normal chain of command. This also means a hotline, like the City of Houston Office of Inspector General's Hotline, that employees may use if they are reluctant to bring serious concerns directly to management. For organizations with a morale problem, which can undermine employee confidence in and loyalty to the organization, it is essential to identify the underlying causes and address them. In most cases, morale problems indicate a breakdown in management at either the first or second line level. No matter what the cause, a weak score for this theme suggests a strong need to establish quickly as many feedback loops as are reasonably possible between employees and management. These feedback loops might include (but are not limited to) newsletters and periodic staff meetings to answer employee questions and concerns. As a safety precaution, many organizations have an active program to debrief departing employees well in advance of their last day. One objective of doing this is to address any remaining perceptions of wrongdoing in the department and to correct any misperceptions they might otherwise carry out to the community at large.

## V. DATA ANALYSIS

The entire survey consists of 70 questions grouped into seven panels, each consisting of ten items or questions. There is also a cross-section of compliance elements, called *themes*, with a specific compliance focus that is distinct from the subject of the panel itself. Themes are not made explicit to the respondent, but the panels are. Neutrality has been set at a mean score value of 3.00 for each individual item as well as for each panel. A panel score that is significantly higher than 3.00 should be regarded as better than neutrality; any score significantly lower than 3.00 should be considered worse than neutrality. Positive scores should not be mistaken as a signal for complacency or looked upon as not warranting further attention. Furthermore, scores below neutrality warrant close examination by management and should lead to remedial actions. Management should focus on this minority of adverse responses that demonstrate a lack of support for management as indicated in individual items. Similarly, when reviewing panel results, management should generally be pleased with positively oriented results, but not to the point of believing that additional work is unnecessary. Negative panel results warrant examination of the reasons behind these scores, along with constructive steps toward improving management performance and employee perceptions. By the nature of a broad-based survey, the results can only provide insights and indicators. Exact reasons and underlying facts as to why respondents scored the way they did would need to be determined by other techniques.

**OVERALL FINDINGS:** The overall mean score for this survey is 2.63, which suggests that HEC respondents tend to have a more negative than positive view of the issues addressed in this survey. The individual panel means range from 2.37 (Compliance with Laws and Regulations) to 3.11 (Financial Management). Only one of the panel means is above neutrality. Of the individual means for each of the 70 items ("item means"), 15 are higher than the neutrality value of 3.00. Of the remaining 55 means, one is considered neutral and 54 are below neutrality.

In addition to evaluating the department's overall score over time and against itself, it can be compared to the SMSInc database index. This database has been calculated from the scores of hundreds of surveys involving over 500,000 employees. The current database average index level is 234. The sum of the 70 item means of HEC's survey has a value of 185, which is below this average.

**RESULTS BY PANEL:** Following are the data for each of the seven survey panels. Each section details the overall purpose of and findings for the panel. A text box for each section illustrates the Mean Scores for each of the ten items in the panel (Reverse Score items are marked with an "\*" in the following text boxes). The appropriate Item Value benchmarked for the database for each item is also presented for comparison purposes. After the overall findings are presented, an item-by-item analysis evaluates the data for each item and offers additional insight into the findings.

- 4.1: Personal Job Satisfaction
- 4.2: Compliance with Laws and Regulations
- 4.3: Quality of Services/Products
- 4.4: Employee Communication
- 4.5: Management Practices
- 4.6: Human Resources Practices
- 4.7: Financial Management

**Table I: Summary of Houston Emergency Call Center Mean Scores and Reverse Mean Scores**

Panel Question	Personal Job Satisfaction [1 - 10]	Compliance with Laws/ Regulations [1 - 20]	Quality of Services/ Products [21 - 30]	Employee Communication [31 - 40]	Management Practices [41 - 50]	Human Resources Practices [51 - 60]	Financial Management [61 - 70]	
1	3.18	<u>2.11</u>	2.87	2.28	2.28	2.89	2.68	
2	<u>3.32</u>	2.21	2.98	2.59	<u>2.62</u>	3.44	2.53	
3	3.99	2.21	<u>2.40</u>	2.71	<u>2.44</u>	2.75	2.86	
4	2.12	2.36	2.33	<u>1.95</u>	3.93	<u>3.09</u>	<u>3.35</u>	
5	<u>1.72</u>	<u>2.19</u>	2.63	2.47	<u>2.10</u>	3.09	3.34	
6	1.79	<u>2.39</u>	<u>2.54</u>	3.90	1.99	2.75	3.51	
7	<u>1.93</u>	<u>2.57</u>	3.79	<u>1.93</u>	2.66	<u>2.50</u>	2.23	
8	<u>1.78</u>	<u>2.53</u>	2.48	<u>2.99</u>	<u>2.58</u>	2.66	3.31	
9	3.00	2.99	2.30	<u>2.73</u>	2.60	<u>2.35</u>	<u>4.10</u>	
10	1.76	2.31	<u>2.73</u>	<u>2.11</u>	1.92	2.31	3.18	
<b>Panel Mean</b>	2.47	2.37	2.71	2.67	2.52	2.77	3.11	
<b>Overall</b>								2.63

Note:  
*Italicized numbers are reverse mean scores.*

#### 4.1: PERSONAL JOB SATISFACTION

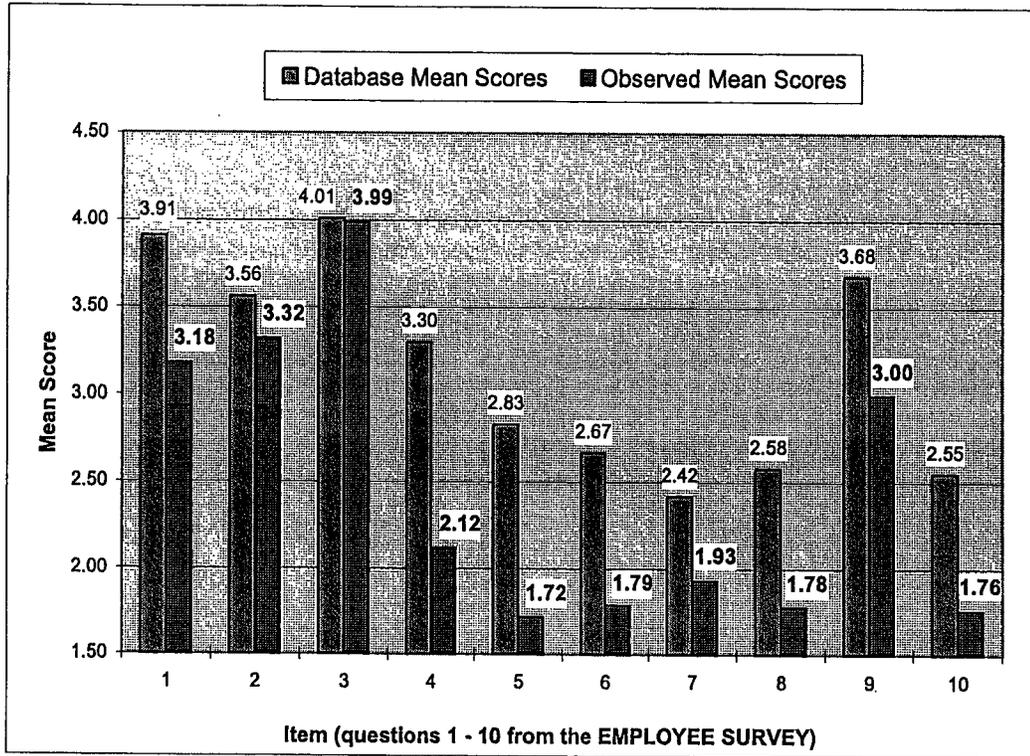
This panel is designed to measure employees' attitudes toward their employer. Evidence suggests that employees who are generally dissatisfied with their job are less reliable in their compliance with applicable rules, regulations, and department policies. A workforce with large numbers of highly dissatisfied employees would, therefore, indicate one type of compliance risk. It also may indicate a desire to seek employment elsewhere and cause high turnover rates. A very significant percentage of whistle-blowers who report to external agencies, attorneys, or the media are former employees who believe they were treated poorly by their employer. Generally, those who do this are not troublemakers during their employment, nor are they likely to have been subject of recent adverse action or termination for just cause. Instead, these whistle-blowers are individuals who choose, for whatever reason, not to raise their concerns about business practices until they are free from the influence of the department. Therefore, it is important to gauge the morale and attitudes of employees, as well as examine the basis for their concerns. It is suggested that each of the individual item means in this panel be closely reviewed for additional insights. An effective, interactive compliance training program generally assists in improving this score.

The overall mean for the Personal Job Satisfaction panel is 2.47. This panel mean is significantly below neutrality. The range of the individual item means for this panel is from 1.72 to 3.99. Scores taken together indicate employees are expected and do perform at a high level but indicate high stress that impacts negatively on their morale. Three item means are above neutrality, one is neutral, and six are below neutrality.

Personal Job Satisfaction			
ITEM	QUESTION TEXT	ITEM MEAN	DATABASE VALUE
1	My work provides me a great deal of personal job satisfaction.	3.18	3.91
2*	People in my work group are often given tasks that are beyond their skills to perform properly.	3.32	3.56
3	My job responsibilities are challenging.	3.99	4.01
4	I would favorably compare my current work environment with other job environments that I have experienced in the past couple of years.	2.12	3.30
5*	If the people in my work group were offered a similar job elsewhere at the same pay, they would leave the company.	1.72	2.83
6	There are fewer disgruntled employees at the company compared to other companies where I have worked.	1.79	2.67
7*	Compared to other places I have worked, there are fewer promotional opportunities within the company as a reward for good performances.	1.93	2.42
8*	Overall, there are significant morale problems among the people in my work group.	1.78	2.58
9	There is a strong work ethic within my division.	3.00	3.68
10	Recent changes and restructuring of the business have improved my job satisfaction.	1.76	2.55
Overall Panel Mean		2.47	3.15

Houston Emergency Call Center  
COMPARISON TO THE COMPLIANCE BENCHMARK SURVEY™ DATABASE

Personal Job Satisfaction



**PERSONAL JOB SATISFACTION**

**1. My work provides me a great deal of personal job satisfaction.**

RESULTS<sup>12</sup>

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (n)
n	37	27	28	54	40	0	186
%	20%	15%	15%	29%	22%	n/a	100%
Cum%	20%	34%	49%	78%	100%	n/a	
Mean	<b>3.18</b>						

This is an important question from a compliance perspective. A significant percentage of whistle-blowers come from environments that they find to be unsatisfactory. In general, employees who find their work environment satisfying are less likely to be motivated by working conditions to report their concerns or problems outside department channels. Conversely, a poor score in this area would suggest a greater risk of whistle-blowing. For this item, 34% of respondents are in disagreement and 51% are in agreement. Although this score is above neutrality, it can be strengthened.

**2.\* People in my work group are often given tasks that are beyond their skills to perform properly.**

RESULTS

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (n)
n	33	66	24	32	22	6	177
%	19%	37%	14%	18%	12%	n/a	100%
Cum%	19%	56%	69%	88%	100%	n/a	
Mean	<b>2.68</b>						
Reverse Mean	<b>3.32</b>						

This statement is designed to determine whether employees perceive that they are asked to act improperly and given tasks beyond their skills. A negative score would suggest employee frustration due to assigned tasks that are beyond their ability to perform. If this is coupled with a sense that the public is being shortchanged, it could create a fertile environment for whistle-blowers. For this item, 56% of respondents are in disagreement and 31% are in agreement. Overall, this is a positive result in an area critical for the HEC mission.

<sup>1</sup> "Score" in the table refers to the values assigned to the scale of agreement: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree.

<sup>2</sup> Note: The percentages in the tables display the rounded whole numbers. Due to rounding, the total of these values may not always add up to 100%. Percentages mentioned in the text are taken from the cumulative tally, "Cum%."

**3. My job responsibilities are challenging.**

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [1-5]
n	8	18	20	60	79	0	185
%	4%	10%	11%	32%	43%	n/a	100%
Cum%	4%	14%	25%	57%	100%	n/a	
Mean	<b>3.99</b>						

A positive, i.e., high, score normally suggests that employees are receiving gratification from their work. The only downside to a high score in this category might be that the job may become too challenging, and result in employee frustration or lead to cutting corners. For this item, 14% of respondents are in disagreement and 75% are in agreement. This is an excellent result, but periodic monitoring of this issue is encouraged to ensure that the level of challenge does not become excessive or negatively impact on performance.

**4. I would favorably compare my current work environment with other environments that I have experienced in the past couple of years.**

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [1-5]
n	91	37	10	29	15	3	182
%	50%	20%	5%	16%	8%	n/a	100%
Cum%	50%	70%	76%	92%	100%	n/a	
Mean	<b>2.12</b>						

This is an important question because whistle-blowing is more likely among employees who have negative perceptions of their current work environment. A positive finding suggests that respondents are supportive about the department as compared to previous work environments. By extension, positive perceptions of this item reflect a favorable attitude about HEC beyond the work group. For this item, 70% of respondents are in disagreement and 24% are in agreement. The very low score suggests it is an issue warranting further examination and may indicate low morale levels within the department.

5.\* If the people in my work group were offered a similar job elsewhere at the same pay, they would leave the company.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [1-5]
n	8	16	10	24	115	12	173
%	5%	9%	6%	14%	66%	n/a	100%
Cum%	5%	14%	20%	34%	100%	n/a	
Mean	4.28						
Reverse Mean	1.72						

Strong agreement as a response to this question, or equivalently a low Reverse Mean Score, constitutes a warning signal and indicates serious stress within the department. This stress can negatively impact morale over time and can weaken employee commitment. Often there is a strong correlation between staff turnover and lower scores on this item. A majority of whistle-blowers who report to external agencies do so only after they quit their employment. For this item, 14% of respondents are in disagreement and 80% are in agreement. This extremely low score warrants further examination and suggests that some employees may not be willing to endure current job stress.

6. There are fewer disgruntled employees at the company compared to other companies where I have worked.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [1-5]
n	101	43	14	10	10	7	178
%	57%	24%	8%	6%	6%	n/a	100%
Cum%	57%	81%	89%	94%	100%	n/a	
Mean	1.79						

As noted above, a significant percentage of whistle-blowers who report to external agencies do so after leaving their employment. Thus, an adverse score for this question would indicate some stress within the department that has a negative impact on morale. For this item, 81% of respondents are in disagreement and 11% are in agreement and taken together with items 5 and 7 may reflect a staff turnover problem. This issue warrants further examination.

7.\* Compared to other places I have worked, there are fewer promotional opportunities within the company as a reward for good performances.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	11	16	20	33	97	8	177
%	6%	9%	11%	19%	55%	n/a	100%
Cum%	6%	15%	27%	45%	100%	n/a	
Mean	4.07						
Reverse Mean	1.93						

This question compares the perceived promotional opportunities at HEC to other workplaces. Weak marks on this item suggest a risk of employees being motivated to go through outside channels to seek fair treatment and/or leave for other work. For this item, 15% of respondents are in disagreement and 73% are in agreement. This issue warrants further examination.

8.\* Overall, there are significant morale problems among the people in my work group.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	15	13	10	26	121	1	185
%	8%	7%	5%	14%	65%	n/a	100%
Cum%	8%	15%	21%	35%	100%	n/a	
Mean	4.22						
Reverse Mean	1.78						

This reverse score item is designed to measure the current employee attitude towards the workplace. Morale problems can translate into employee frustration with regard to their job environment and, therefore, turning to external sources for assistance. For this item, 15% of respondents are in disagreement and 79% are in agreement. This issue warrants further examination.

9. There is a strong work ethic within my division.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [1-5]
n	49	28	23	40	43	2	183
%	27%	15%	13%	22%	23%	n/a	100%
Cum%	27%	42%	55%	77%	100%	n/a	
Mean	<b>3.00</b>						

This item is designed to measure the employees' level of identification with other individuals in their work group. Generally, a high score on the item is positive for the department. This can, however, cut two ways; the full implications can only be derived by keeping the results in context with the other items in the survey. Strong identification with, and belief in, the members of the work group may dissuade reporting outside the chain of command, or provide the moral grounds to protect the work group from unfair or improper management practices. For this item, 42% of respondents are in disagreement and 45% are in agreement. This neutral score can be strengthened.

10. Recent changes and restructuring of the business have improved my job satisfaction.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [1-5]
n	102	41	20	13	4	3	180
%	57%	23%	11%	7%	2%	n/a	100%
Cum%	57%	79%	91%	98%	100%	n/a	
Mean	<b>1.76</b>						

Many departments undergo periodic restructuring or reorganizing. This question asks whether or not employees find management actions of this type unsettling. From a compliance perspective, it would be desirable to begin easing employee insecurity and low morale arising from this issue. This should occur at the earliest opportunity. If employees continue in uncertainty for too long a time they might begin to view this as impacting improperly on the public they serve, which in turn is motivation for whistle-blowing. For this item, 79% of respondents are in disagreement and 9% are in agreement. This issue would be a good base to build on when attempting to strengthen overall employee morale. This issue warrants further examination.

#### 4.2: COMPLIANCE WITH LAWS AND REGULATIONS

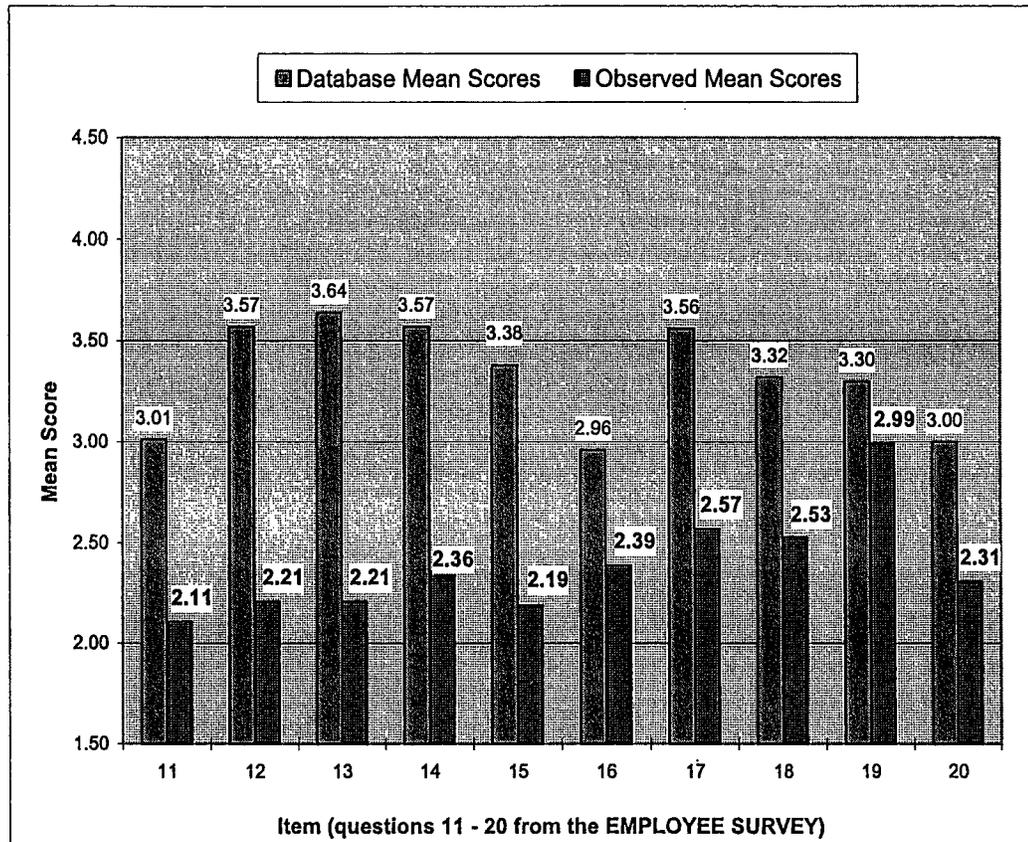
This panel focuses directly on compliance issues. The impressions and attitudes reported here provide useful guidance as to where additional reviews may be necessary. One such area typically involves fear of retribution for reporting concerns or individuals. This latter stress point requires ongoing monitoring and periodic reviews of how policies and procedures are implemented. Weak scores in this area also underscore the importance of evidencing the executive leadership's personal and continuous commitment to compliance. A close monitoring of this issue is always advisable. A signed letter encouraging reporting with the promise of non-retribution and non-retaliation should only be one of many such measures implemented by the department. Additionally, a Hotline that employees deem credible is a key ingredient to any efforts ensuring compliance with laws and regulations.

The overall mean for the Compliance with Laws and Regulations panel is 2.37. This panel mean is well below neutrality. For the line of work in which HEC is engaged, this should be of some concern. The range of the individual item means for this panel is from 2.11 to 2.99. All ten of the item means fall below neutrality, warranting special attention and remedial action steps.

Compliance with Laws and Regulations			
ITEM	QUESTION TEXT	ITEM MEAN	DATABASE MEAN
11*	Internal problems in my work area are frequently left unaddressed by management and interfere with my ability to get the job done.	2.11	3.01
12	In conducting its business, I view our company as a leading force in the industry for ethics and compliance.	2.21	3.57
13	Over the last year I have not observed any serious violations of the company's policies and procedures or laws/regulations.	2.21	3.64
14	The policies/procedures manuals, and other such documents provide solid guidance as to how the company conducts its business.	2.36	3.57
15*	Senior management of my division cannot be counted upon to adhere to all the rules set forth by the regulatory agencies.	2.19	3.38
16*	I would fear retribution or reprisals for reporting somebody, especially my supervisor.	2.39	2.96
17*	I am aware that the company has in the last year cut corners to the point where it resulted in violations of law and/or regulations.	2.57	3.56
18*	I do not feel that I can speak to my supervisor about serious problems and concerns in the work environment without causing problems for myself.	2.53	3.32
19	New employees are properly oriented so as to understand how to avoid violations of government laws, regulations, and rules.	2.99	3.30
20	I feel that I can talk to a member of the human resources staff or someone in senior management about issues concerning work, even if it involves questioning my supervisor or the way the company conducts business.	2.31	3.00
Overall Panel Mean		2.37	3.38

Houston Emergency Call Center  
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Compliance with Laws and Regulations



**COMPLIANCE WITH LAWS AND REGULATIONS**

**11.\*Internal problems in my work area are frequently left unaddressed by management and interfere with my ability to get the job done.**

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	14	26	16	39	90	0	185
%	8%	14%	9%	21%	49%	n/a	100%
Cum%	8%	22%	30%	51%	100%	n/a	
Mean	3.89						
Reverse Mean	2.11						

Problems left unaddressed by management give rise to frustration, which can encourage the use of external resources to seek redress of grievances. A positive result on this item suggests that internal problems are frequently addressed by management and, thus, do not tend to interfere with work. By extension, a positive finding also suggests that management usually is able to limit the employee frustration that can lead to impaired job performance. For this item, 22% of respondents are in disagreement and 70% are in agreement. The below neutral score indicates that this issue warrants further examination.

**12. In conducting its business, I view our company as a leading force in the industry for ethics and compliance.**

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	76	39	31	19	15	6	180
%	42%	22%	17%	11%	8%	n/a	100%
Cum%	42%	64%	81%	92%	100%	n/a	
Mean	2.21						

This item registers a vote of confidence in the department with respect to compliance issues. The more positive a score, the more positive it is for the department's reputation. Favorable results in this area highlight respondents' confidence that HEC is adhering to proper compliance standards. For this item, 64% of respondents are in disagreement and 19% are in agreement. This issue warrants further examination.

13. Over the last year I have not observed any serious violations of the company's policies and procedures or laws/regulations.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	80	31	19	32	11	11	173
%	46%	18%	11%	18%	6%	n/a	100%
Cum%	46%	64%	75%	94%	100%	n/a	
Mean	2.21						

This is a key compliance statement designed to measure perception, not fact. It is impossible to determine from this survey how employees came to their perception or to what degree violations of laws or regulations actually exist. In responding to this item, employees are expressing their confidence, or lack thereof, in management's adherence to the rules. For this item, 64% of respondents are in disagreement and 25% are in agreement. This issue warrants further examination.

14. The policies/procedures manuals, and other such documents provide solid guidance as to how the company conducts its business.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	62	51	24	34	12	2	183
%	34%	28%	13%	19%	7%	n/a	100%
Cum%	34%	62%	75%	93%	100%	n/a	
Mean	2.36						

The U.S. Sentencing Commission's "Guidelines for Organizations" focuses on the important department role of communicating the expectation that employees perform their duties in a legal, compliant fashion. This statement examines how employees perceive the guidance they are provided. For this item, 62% of respondents are in disagreement and 25% are in agreement. This issue warrants further examination.

15.\*Senior management cannot be counted upon to adhere to all the rules set forth by the regulatory agencies.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	15	21	21	41	75	11	173
%	9%	12%	12%	24%	43%	n/a	100%
Cum%	9%	21%	33%	57%	100%	n/a	
Mean	3.81						
Reverse Mean	2.19						

A poor score on this important compliance indicator suggests that the department may be at serious risk of violations of compliance standards and rules. It also serves as an indicator of whether employees believe that the department is truly committed to compliance with all applicable laws and regulations. For this item, 21% of respondents are in disagreement and 67% are in agreement. This issue warrants further examination.

16.\*I would fear retribution or reprisals for reporting somebody, especially my supervisor.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	19	33	20	42	71	2	185
%	10%	18%	11%	23%	38%	n/a	100%
Cum%	10%	28%	39%	62%	100%	n/a	
Mean	3.61						
Reverse Mean	2.39						

This item is another very important compliance indicator. It is critical to encourage employees to report problems. In order to accomplish this, employees must be assured that there are no negative consequences for reporting problems. The U.S. Sentencing Commission's "Guidelines for Organizations" emphasizes the importance of employees having the confidence to report problems and violations without fear of retaliation or retribution; thus, a poor or ambivalent score here suggests that many employees fear retribution or reprisals for reporting someone. Such a finding should be considered a warning signal for the department and warrants careful attention. For this item, 28% of respondents are in disagreement and 61% are in agreement. This issue warrants further examination.

17.\*I am aware that the company has in the last year cut corners to the point where it resulted in violations of law and/or regulations.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	15	31	28	15	54	44	143
%	10%	22%	20%	10%	38%	n/a	100%
Cum%	10%	32%	52%	62%	100%	n/a	
Mean	3.43						
Reverse Mean	2.57						

This is a key aspect from a compliance perspective. It is not possible to determine in this survey the seriousness or actual occurrence of such violations that may be reported here. However, the existence of significant employee perceptions of any violations would suggest a risk and vulnerability to whistle-blowers. For this item, 32% of respondents are in disagreement and 48% are in agreement. This issue warrants further examination.

18.\*I do not feel that I can speak to my supervisor about serious problems and concerns in the work environment without causing problems for myself.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	20	43	17	35	67	3	182
%	11%	24%	9%	19%	37%	n/a	100%
Cum%	11%	35%	44%	63%	100%	n/a	
Mean	3.47						
Reverse Mean	2.53						

This item tests employee perceptions of management's receptivity to reported problems of a sensitive nature. If employees are fearful of bringing sensitive concerns to management, then the likelihood increases that they would turn to external entities to resolve their concerns. For this item, 35% of respondents are in disagreement and 56% are in agreement. This issue warrants further examination.

19. New employees are properly oriented so as to understand how to avoid violations of government laws, regulations and rules.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	29	26	31	48	17	35	151
%	19%	17%	21%	32%	11%	n/a	100%
Cum%	19%	36%	57%	89%	100%	n/a	
Mean	2.99						

This refers to the expectation that all new employees are properly oriented with respect to compliance issues. This item is designed to determine how well the department is performing in achieving this end. Management attention is definitely warranted whenever this score falls short of neutrality. Low Mean Score values constitute a sign of inadequate training in compliance issues and a lack of initial orientation for all new employees. Regardless of the Mean Score, any major changes, clarifications, or improvements to compliance regulations should be clearly explained to all employees. Additionally, a Compliance Training Program can help improve the orientation process and should strengthen this score. For this item, 36% of respondents are in disagreement and 43% are in agreement. This issue warrants further examination.

20. I feel that I can talk to a member of the human resources staff or someone in senior management about issues concerning work, even if it involves questioning my supervisor or the way the company conducts business.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	70	44	18	34	13	8	179
%	39%	25%	10%	19%	7%	n/a	100%
Cum%	39%	64%	74%	93%	100%	n/a	
Mean	2.31						

This item also evaluates employee perceptions of whether or not management is receptive to employees' reporting problems of a sensitive nature which would question an immediate supervisor or the department's business practices. If employees are fearful of reporting such concerns, then they are more likely to turn to external entities to seek resolution of their concerns. For this item, 64% of respondents are in disagreement and 26% are in agreement. This issue warrants further examination.

#### 4.3: QUALITY OF SERVICES/PRODUCTS

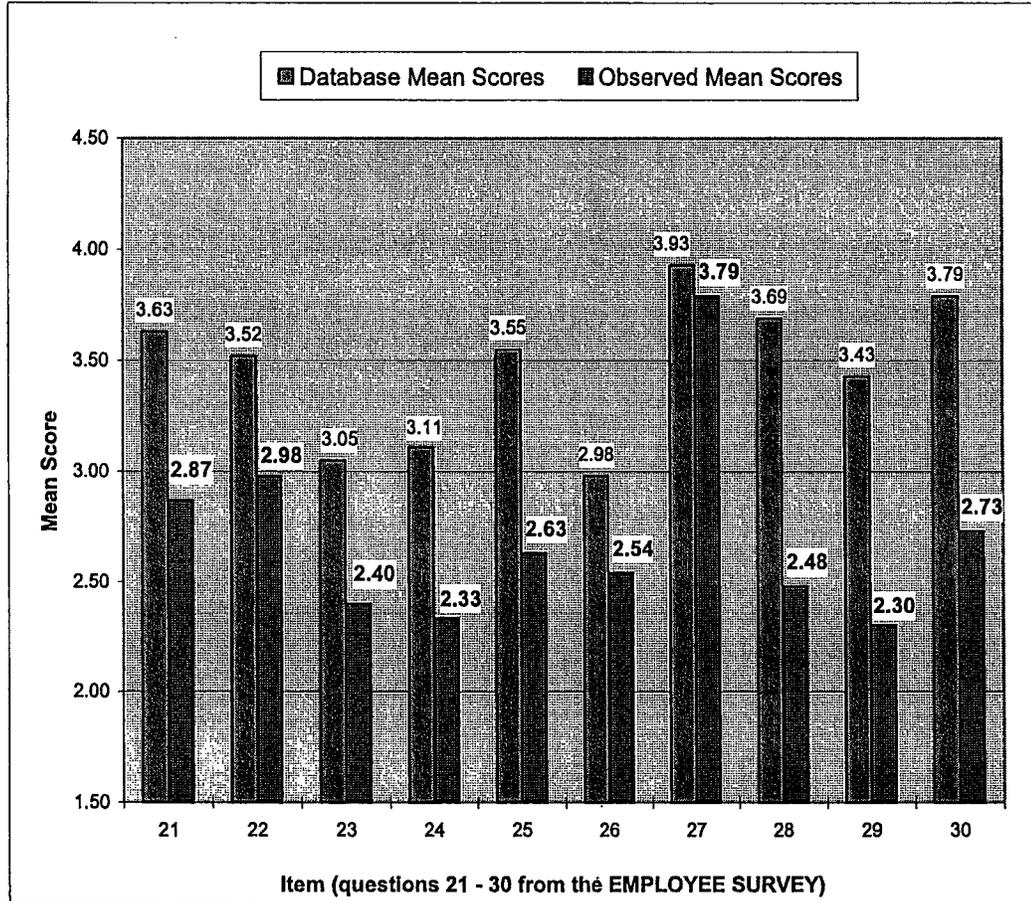
Key elements of this panel include respondents' perception of confidence in the quality of services provided by the department, and whether the department sets and maintains high services standards. Whether or not respondents would recommend the department to a family member is a good indication of employee confidence and trust in the quality of services provided. Thus, a department perceived as providing high quality service is in a better position to deal with other compliance issues than departments that are weak in this area. Pride in a department's services often translates into stronger employee morale and greater confidence in the department as a whole.

The overall mean for the Quality of Services panel is 2.71. This panel mean is below neutrality. The range of the individual item means for this panel is from 2.30 to 3.79. One item mean is above neutrality and nine are below neutrality. For the business in which HEC is engaged, this whole area warrants attention.

Quality of Services/Products			
ITEM	QUESTION TEXT	ITEM MEAN	DATABASE MEAN
21	The company sets high standards and maintains strict policies to assure high quality of services/products to customers.	2.87	3.63
22	The company employees believe their work group is effectively providing high quality services/products.	2.98	3.52
23*	There are not sufficient resources available to ensure quality care and services for customers served by the company.	2.40	3.05
24	Over the last year, new technology or equipment made a positive difference in the quantity and quality of achievements in my work group.	2.33	3.11
25	I would feel comfortable about a member of my family using the company's services/products.	2.63	3.55
26*	The company is more concerned about making money than providing quality services/products to customers.	2.54	2.98
27	I admire the skill of the people within my work group in providing quality services/products to customers.	3.79	3.93
28	I am proud to tell people about the company and my work with them.	2.48	3.69
29	The company sets the standard for the industry in providing quality of services/products.	2.30	3.43
30*	The company's customers receive poorer services/products than customers being served by our major competitors.	2.73	3.79
Overall Panel Mean		2.71	3.47

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Quality of Services/Products



**QUALITY OF SERVICES/PRODUCTS**

21. The company sets high standards and maintains strict policies to assure high quality of services/products to customers.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [1-5]
n	47	32	30	52	25	1	186
%	25%	17%	16%	28%	13%	n/a	100%
Cum%	25%	42%	59%	87%	100%	n/a	
Mean	<b>2.87</b>						

Poor results on service to the community can be a very serious problem. This, in turn, can excite whistleblower activity among the workforce more rapidly than most other issues. Thus, a weak Mean Score suggests that many respondents lack confidence in HEC's adherence to high standards in its services to the public. For this item, 42% of respondents are in disagreement and 41% are in agreement. This issue warrants further examination.

22. The company employees believe their work group is effectively providing high quality services/products.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [1-5]
n	35	36	29	56	23	3	179
%	20%	20%	16%	31%	13%	n/a	100%
Cum%	20%	40%	56%	87%	100%	n/a	
Mean	<b>2.98</b>						

Generally, employees will tolerate stress in their work, so long as they believe that the public is properly served by the department. Thus, a poor score on this item indicates greater risk of employees reporting to external authorities and a strong score suggests that HEC is doing a good job of providing high quality services. For this item, 40% of respondents are in disagreement and 44% are in agreement. This issue warrants further examination.

23.\* There are not sufficient resources available to ensure quality care and services for customers served by company.

RESULTS

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (n=)
n	13	36	21	45	62	7	177
%	7%	20%	12%	25%	35%	n/a	100%
Cum%	7%	28%	40%	65%	100%	n/a	
Mean	3.60						
Reverse Mean	2.40						

One of the most sensitive issues among employee populations is the perceived cutback in resources to get the job done. A lack of sufficient resources can interfere with delivery of high quality service. For this item, 28% of respondents are in disagreement and 60% are in agreement. This issue warrants further examination.

24. Over the last year, new technology or equipment made a positive difference in the quantity and quality of achievements in my work group.

RESULTS

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (n=)
n	70	40	25	33	13	3	181
%	39%	22%	14%	18%	7%	n/a	100%
Cum%	39%	61%	75%	93%	100%	n/a	
Mean	2.33						

This question measures employee perceptions of whether respondents' work groups have benefited from recent technological innovations that support the highest and most modern quality service. For this item, 61% of respondents are in disagreement and 25% are in agreement. This issue warrants further examination.

25. I would feel comfortable about a member of my family using the company's services/products.

RESULTS

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [1-5]
n	53	30	42	40	15	4	180
%	29%	17%	23%	22%	8%	n/a	100%
Cum%	29%	46%	69%	92%	100%	n/a	
Mean	2.63						

This question is often considered an acid test of employee perceptions and attitudes concerning commitment to quality of service. Positive employee response to this question, especially when using their own families as a guide, indicates a high level of confidence in the department. For this item, 46% of respondents are in disagreement and 31% are in agreement. This issue warrants further examination.

26.\* The company is more concerned about making money than providing quality services/products to customers.

RESULTS

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [1-5]
n	17	32	30	26	57	21	162
%	10%	20%	19%	16%	35%	n/a	100%
Cum%	10%	30%	49%	65%	100%	n/a	
Mean	3.46						
Reverse Mean	2.54						

The item measures employee attitudes towards HEC and its perceived goals. The results serve as a measure of respondents' confidence in the department's commitment to its stated goals. A low score on this item can indicate employee distrust of the department's motives and, thus, a potential willingness to report to external authorities. For this item, 30% of respondents are in disagreement and 51% are in agreement. This issue warrants further examination.

27. I admire the skill of the people within my work group in providing quality services/products to customers.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	10	16	24	87	48	1	185
%	5%	9%	13%	47%	26%	n/a	100%
Cum%	5%	14%	27%	74%	100%	n/a	
Mean	3.79						

Employees who have low confidence in their fellow workers are more likely to report them to authorities. Conversely, appreciation of the skills of co-workers and higher confidence in the people providing quality services to the public reduces this risk. For this item, 14% of respondents are in disagreement and 73% are in agreement. This is a positive result.

28. I am proud to tell people about the company and my work with them.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	65	31	40	30	18	1	184
%	35%	17%	22%	16%	10%	n/a	100%
Cum%	35%	52%	74%	90%	100%	n/a	
Mean	2.48						

It is always a bad sign with respect to compliance when people express concern about identifying their employer to others. Conversely, a positive Mean Score indicates that respondents are proud of their work within their department, which should be viewed favorably by management. For this item, 52% of respondents are in disagreement and 26% are in agreement. This issue warrants further examination.

29. The company sets the standard for the industry in providing quality services/products.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (n)
n	<b>65</b>	<b>38</b>	<b>33</b>	<b>27</b>	<b>10</b>	<b>10</b>	<b>173</b>
%	38%	22%	19%	16%	6%	n/a	100%
Cum%	38%	60%	79%	94%	100%	n/a	
Mean	<b>2.30</b>						

This item evaluates the department's leadership role in setting the industry standard for providing high quality services. A high score here illustrates respondents' belief that HEC is among those setting the industry standard for quality services. For this item, 60% of respondents are in disagreement and 21% are in agreement. This issue warrants further examination.

30.\* The company's customers receive poorer services/products than customers being served by our major competitors.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (n)
n	<b>17</b>	<b>35</b>	<b>32</b>	<b>34</b>	<b>39</b>	<b>27</b>	<b>157</b>
%	11%	22%	20%	22%	25%	n/a	100%
Cum%	11%	33%	54%	75%	100%	n/a	
Mean	<b>3.27</b>						
Reverse Mean	<b>2.73</b>						

This item reflects the respondents' evaluation of services provided by the department vis-à-vis its competitors. A positive perception by the employees regarding their own department may reduce the risk of compliance problems. For this item, 33% of respondents are in disagreement and 46% are in agreement. This issue warrants further examination.

#### 4.4: EMPLOYEE COMMUNICATION

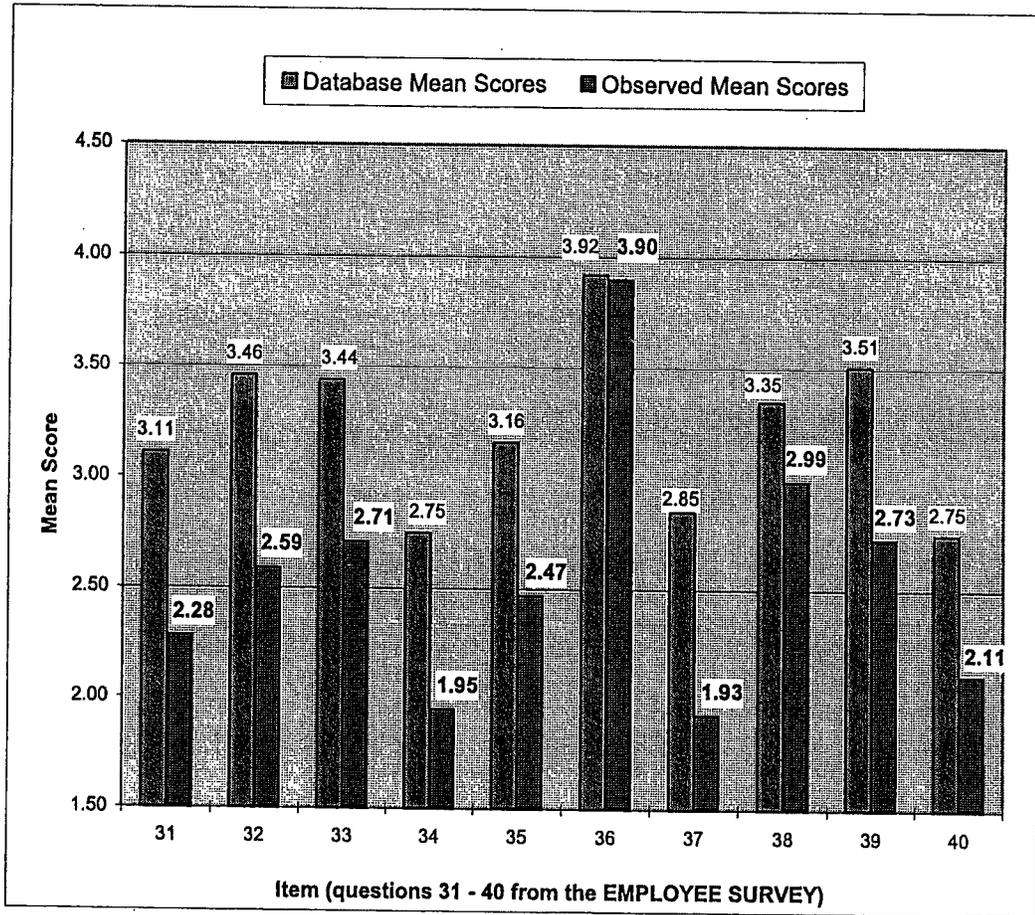
Communication is typically among the weaker links in most workplaces and usually warrants careful attention. An efficient communication structure is particularly important for workplaces with multiple divisions/sites or newly acquired entities. Generally, if employees feel there is no effective communication system in place, they may not fully comprehend the reasons for routines, procedures, or work processes. This can lead to hesitation and lack of trust in reporting problems internally. Thus, maintaining the effective communication of compliance policies and initiatives is an integral part of creating a compliant department. There are a number of compliance initiatives that can assist in improving two-way communication between management and staff, including an employee Hotline for reporting problems. A compliance communication strategy should be a part of the operating procedures. Feedback loops and formal communication channels between management and staff also need to be periodically monitored and re-evaluated to ensure efficient, timely communication within the department.

The overall mean for the Employee Communication panel is 2.57. This panel mean is below neutrality. The range of the individual item means for this panel is from 1.93 to 3.90. One item mean is above neutrality and nine are below neutrality. The one area of strength indicated relates to internal work group communication, otherwise communication with other work groups or management levels is indicated as weak.

Employee Communication			
ITEM	QUESTION TEXT	ITEM MEAN	DATABASE MEAN
31	The company does a good job of keeping its employees informed of important issues.	2.28	3.11
32	I can rely upon the various company policies and procedures manuals in my division to provide me with useful guidance as to what is expected of me in the job environment.	2.59	3.46
33	My supervisor provides me clear directions concerning tasks, expectations, and deadlines.	2.71	3.44
34*	The information flow between my work group and other parts of the company make it difficult to coordinate efforts.	1.95	2.75
35	When information is given to my work group, everyone has an opportunity to present their views about matters that concern them.	2.47	3.16
36	The people in my work group are good about sharing their expertise, knowledge, and skills to make sure the job gets done properly.	3.90	3.92
37*	Information about what is happening in the company is not communicated to my department in a timely fashion.	1.93	2.85
38*	Supervisors do not conduct regular staff meetings to share information, decisions and interoffice activities.	2.99	3.35
39*	Most information disseminated by the company in their announcements, memos, letters, and briefings is just self-serving and cannot be taken seriously.	2.73	3.51
40*	I learn more about what is going on in the company through rumors/the grapevine and informal conversations, than through the formal chain of command.	2.11	2.75
Overall Panel Mean		2.57	3.23

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Employee Communication



**EMPLOYEE COMMUNICATION**

**31. The company does a good job keeping its employees informed of important issues.**

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [1-5]
n	<b>71</b>	<b>44</b>	<b>30</b>	<b>30</b>	<b>11</b>	<b>1</b>	<b>186</b>
%	38%	24%	16%	16%	6%	n/a	100%
Cum%	38%	62%	78%	94%	100%	n/a	
Mean	<b>2.28</b>						

The examination of communication channels is an important element in assessing a department. The poorer the perceived communication between individuals and their employer, the greater the likelihood they will report problems outside the chain of command. Poor scores in this area would constitute a warning that education among the employee population must be improved and warrants management attention. For this item, 62% of respondents are in disagreement and 22% are in agreement. This issue warrants further examination.

**32. I can rely upon the various company policies and procedures manuals to provide me with useful guidance as to what is expected of me in the job environment.**

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [1-5]
n	<b>54</b>	<b>42</b>	<b>25</b>	<b>53</b>	<b>11</b>	<b>1</b>	<b>185</b>
%	29%	23%	14%	29%	6%	n/a	100%
Cum%	29%	52%	65%	94%	100%	n/a	
Mean	<b>2.59</b>						

The statement measures employee confidence in formal written guidance. It is an important element of any successful department that adequate guidance be given to employees as to what is expected of them in the work environment, and for HEC and the work performed by them, it rises to a higher critical level. The Mean Score on this element indicates that manuals are not providing all the guidance employees feel they need. It further suggests that management may not have adequately trained employees on the existing written guidance. Further efforts toward compliance, such as enhancing current policy and procedures manuals; and implementing a Compliance Training Program should further improve respondents' perceptions of this issue. Regardless of the Mean Score, employees should always be informed of any major changes or additions to the present and future manuals. For this item, 52% of respondents are in disagreement and 35% are in agreement. This issue warrants attention.

35. When information is given to my work group, everyone has an opportunity to present their views about matters that concern them.

RESULTS

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (n=5)
n	62	45	17	51	10	1	185
%	34%	24%	9%	28%	5%	n/a	100%
Cum%	34%	58%	67%	95%	100%	n/a	
Mean	2.47						

This item addresses the confidence of employees in communicating their views to management and whether they are given the opportunity to provide feedback to supervisors. For this item, 58% of respondents are in disagreement and 33% are in agreement. This below neutral score suggests further examination is warranted.

36. The people in my work group are good about sharing expertise, knowledge and skills to make sure the job gets done properly.

RESULTS

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (n=5)
n	13	13	17	80	63	0	186
%	7%	7%	9%	43%	34%	n/a	100%
Cum%	7%	14%	23%	66%	100%	n/a	
Mean	3.90						

This item examines the respondents' trust in their own work groups, and their willingness to share expertise and work as a team. This is an important issue because a cooperative work group tends to support the internal resolution of problems and aids in the communication of warning signals which may otherwise trigger whistle-blowing. For this item, 14% of respondents are in disagreement and 77% are in agreement. This Mean Score is very positive and suggests strong working level cooperation as an HEC strong point. It is, in fact, one of the highest scored elements in the survey.

33. My supervisor provides me with clear directions concerning tasks, expectations and deadlines.

RESULTS

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [1-5]
n	52	33	28	58	13	1	184
%	28%	18%	15%	32%	7%	n/a	100%
Cum%	28%	46%	61%	93%	100%	n/a	
Mean	2.71						

This element focuses on the confidence that employees have in their supervisors' duties and responsibilities and evaluates whether supervisors provide sufficient direction and support to employees. The more negative the score, the more education efforts need to be directed towards employees through first and second line supervisors. For this item, 46% of respondents are in disagreement and 39% are in agreement. This issue warrants further examination.

34.\* The information flow between my work group and other parts of the company makes it difficult to coordinate efforts.

RESULTS

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [1-5]
n	6	18	21	54	84	4	183
%	3%	10%	11%	30%	46%	n/a	100%
Cum%	3%	13%	25%	54%	100%	n/a	
Mean	4.05						
Reverse Mean	1.95						

Effective, reliable communication is essential to providing the foundation for an efficient, motivated, and loyal workforce. This question addresses the perceived information flow between work groups and at various management levels of HEC. For this item, 13% of respondents are in disagreement and 75% are in agreement. The Mean Score on this element is extremely low and warrants attention.

**37.\*Information about what is happening in the company is not communicated to my department in a timely fashion.**

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	5	13	20	67	74	3	179
%	3%	7%	11%	37%	41%	n/a	100%
Cum%	3%	10%	21%	59%	100%	n/a	
Mean	<b>4.07</b>						
Reverse Mean	<b>1.93</b>						

From a compliance standpoint, it is important to understand the reliability of information disseminated by the department. For this item, 10% of respondents are in disagreement and 79% are in agreement. This is an indication of weakness for HEC and warrants further examination.

**38.\*Supervisors do not conduct regular staff meetings to share information, decisions and interoffice activities.**

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	16	65	29	33	33	6	176
%	9%	37%	16%	19%	19%	n/a	100%
Cum%	9%	46%	63%	81%	100%	n/a	
Mean	<b>3.01</b>						
Reverse Mean	<b>2.99</b>						

The primary objective of this item is to better understand the dynamics of how employees communicate with the management of their work group. A positive result suggests that supervisors conduct regular staff meetings to share information. For this item, 46% of respondents are in disagreement and 37% are in agreement. This Mean Score result is very near the point of neutrality but suggests further examination is warranted.

39.\* Most information disseminated by the company in their announcements, memos, letters and briefings is just self-serving and cannot be taken seriously.

RESULTS

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (n=)
n	11	46	48	27	44	6	176
%	6%	26%	27%	15%	25%	n/a	100%
Cum%	6%	32%	60%	75%	100%	n/a	
Mean	3.27						
Reverse Mean	2.73						

This item examines the perceived sincerity of the department-level information system. This is important because, in the long run, only efforts toward a credible information dissemination process can establish trust among employees. For this item, 32% of respondents are in disagreement and 40% are in agreement with the result being below the point of neutrality and warranting further examination.

40.\* I learn more about what is going on in the company through rumors/the grapevine and informal conversations, than through the formal chain of command.

RESULTS

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (n=)
n	12	21	25	46	82	0	186
%	6%	11%	13%	25%	44%	n/a	100%
Cum%	6%	18%	31%	56%	100%	n/a	
Mean	3.89						
Reverse Mean	2.11						

This statement is designed to measure respondents' confidence in the department communication systems. Strong agreement here would indicate poor communication and ineffective formal channels of communication. For this item, 18% of respondents are in disagreement and 69% are in agreement, suggesting a department weakness warranting attention.

#### 4.5: MANAGEMENT PRACTICES

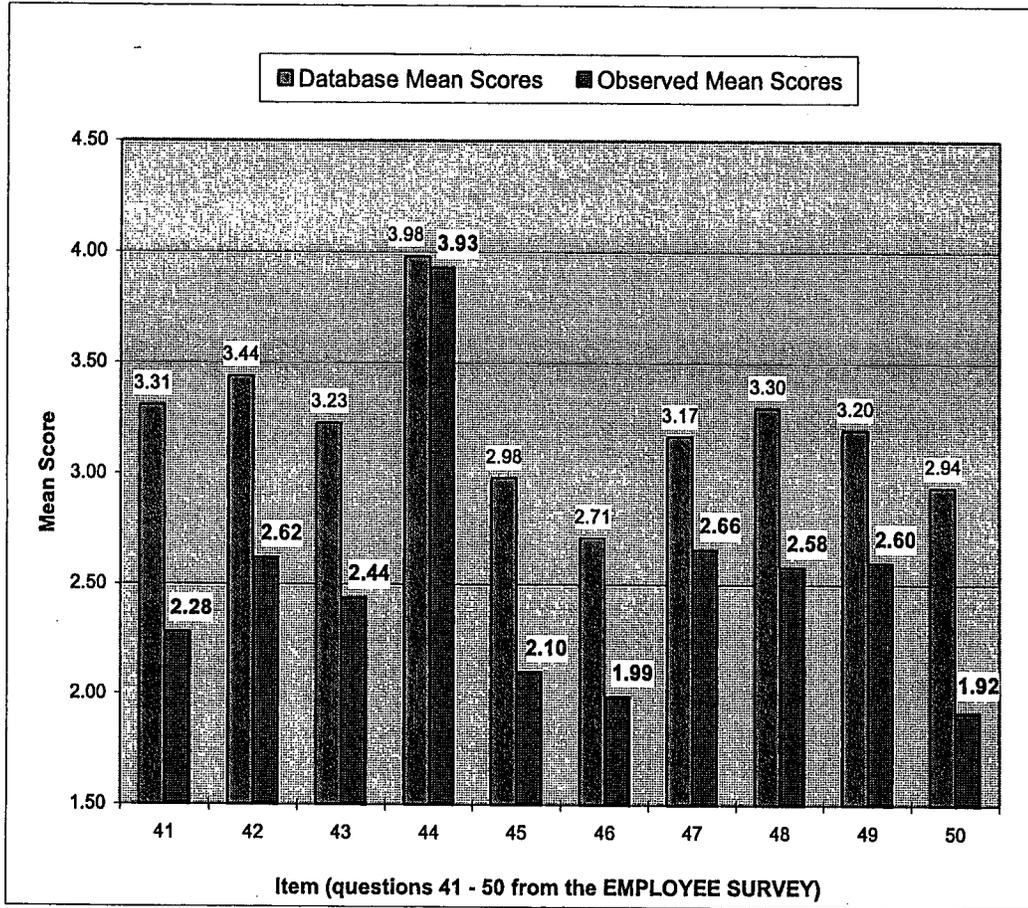
Employee confidence in their managers and their managers' practices is a key to any success. The more confidence employees have in their managers, the more likely they are to use the chain of command for problem resolution. Conversely, the weaker the confidence in management, the greater the credibility employees would give to suspicions of wrongful behavior, and the more often they would avoid reporting through management channels. Significant effort should be made to keep this confidence at optimum levels. Low scores suggest that employees might even distrust using existing reporting channels that bypass the management chain, such as a Hotline. The items in this panel underscore the importance of evidencing a top-down Compliance Program, originating from the executive leadership level. All of the weaker scores within the panel warrant continued management examination, since low confidence or trust in management can increase the possibility that employees would turn outside the department for resolution of perceived problems or concerns.

The overall mean for the Management Practices panel is 2.52. This panel mean is below neutrality with the individual item means ranging from 1.92 to 3.93. One item mean is above neutrality and nine are below neutrality. This panel suggests that many of the issues viewed by employees as negative may be related to first and second line management. Other items in other panels tend to reinforce this point.

Management Practices			
ITEM	QUESTION TEXT	ITEM MEAN	DATABASE MEAN
41	As a rule, managers, supervisors, and staff operate effectively as a team in getting the job done right.	2.28	3.31
42*	The chain of command for my work group is confusing and leads to unnecessary errors being made.	2.62	3.44
43*	The people in my work group have difficulty completing their tasks because of interference or obstacles from above.	2.44	3.23
44	My work group's performance is of high quality and adheres to professional standards.	3.93	3.98
45*	There is a double standard wherein management is permitted to break rules for which staff would be disciplined.	2.10	2.98
46	If employees in my work group did an outstanding job they would receive appropriate recognition or rewards.	1.99	2.71
47*	Employees in my division generally receive support and encouragement from their immediate supervisors.	2.66	3.17
48*	People in my work group are not encouraged to try new approaches for getting the job done.	2.58	3.30
49	My supervisor provides me with constructive suggestions on how to improve my performance.	2.60	3.20
50	Confidence in management of my division is high.	1.92	2.94
Overall Panel Mean		2.52	3.22

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**Management Practices**



**MANAGEMENT PRACTICES**

41. As a rule, managers, supervisors and staff operate effectively as a team in getting the job done right.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [1-5]
<b>n</b>	<b>75</b>	<b>39</b>	<b>25</b>	<b>34</b>	<b>11</b>	<b>0</b>	<b>184</b>
<b>%</b>	<b>41%</b>	<b>21%</b>	<b>14%</b>	<b>18%</b>	<b>6%</b>	<b>n/a</b>	<b>100%</b>
<b>Cum%</b>	<b>41%</b>	<b>62%</b>	<b>76%</b>	<b>94%</b>	<b>100%</b>	<b>n/a</b>	
<b>Mean</b>	<b>2.28</b>						

This statement relates to others in the survey that test employees' confidence in the manner in which their work is performed. It also provides insights as to morale and work group identification, and whether managers, supervisors, and staff are working together as a team to complete assigned tasks. For this item, 62% of respondents are in disagreement and 24% are in agreement. This issue is rated below the point of neutrality warranting further examination.

42.\* The chain of command for my work group is confusing and leads to unnecessary errors being made.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [1-5]
<b>n</b>	<b>16</b>	<b>50</b>	<b>23</b>	<b>34</b>	<b>58</b>	<b>3</b>	<b>181</b>
<b>%</b>	<b>9%</b>	<b>28%</b>	<b>13%</b>	<b>19%</b>	<b>32%</b>	<b>n/a</b>	<b>100%</b>
<b>Cum%</b>	<b>9%</b>	<b>36%</b>	<b>49%</b>	<b>68%</b>	<b>100%</b>	<b>n/a</b>	
<b>Mean</b>	<b>3.38</b>						
<b>Reverse Mean</b>	<b>2.62</b>						

This item is designed to determine employee confidence in working through the chain of command. It is important that employees know to whom problems should be addressed, and how to bring grievances to the attention of higher levels. For this item, 36% of respondents are in disagreement and 51% are in agreement, resulting in a below neutral score. As such, this issue warrants further attention.

43.\* The people in my work group have difficulty completing their tasks because of interference or obstacles from above.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [1-5]
n	10	43	26	39	63	4	181
%	6%	24%	14%	22%	35%	n/a	100%
Cum%	6%	29%	44%	65%	100%	n/a	
Mean	3.56						
Reverse Mean	2.44						

This reverse score item relates to others in the survey designed to measure employee perceptions about whether or not management acts improperly, thus preventing proper performance of duties. From a compliance viewpoint, the more negative this score is, i.e., the lower the reverse mean, the greater the risk that employees would perceive the department as violating laws or rules. Too much perceived improper managerial interference could lead to whistle-blowing to external authorities. For this item, 29% of respondents are in disagreement and 56% are in agreement, bringing the score below the point of neutrality. This issue warrants further examination.

44. My work group's performance is of a high quality and adheres to professional standards.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [1-5]
n	8	10	33	68	65	0	184
%	4%	5%	18%	37%	35%	n/a	100%
Cum%	4%	10%	28%	65%	100%	n/a	
Mean	3.93						

This statement is related to other statements concerning whether or not there is a perceived short-cutting of quality. A positive result here is an important plus in the creation of a successful department. For this item, 10% of respondents are in disagreement and 72% are in agreement. This is an excellent result and at the highest levels of results for HEC on this survey. It is an indication of great HEC organizational strength.

45.\* There is a double standard wherein management is permitted to break rules for which staff would be disciplined.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	18	22	20	21	100	5	181
%	10%	12%	11%	12%	55%	n/a	100%
Cum%	10%	22%	33%	45%	100%	n/a	
Mean	3.90						
Reverse Mean	2.10						

This reverse score item relates to others in the survey designed to examine whether employees believe that management is able to break rules, policies, regulations, or possibly the law, without reprimand. This is a very important issue. Most reporting of companies to external authorities is motivated, in part, by the belief that management is not being held accountable for its actions. Thus, a weak or ambivalent score here calls for serious efforts to investigate allegations and remedy any detected problems. For this item, 22% of respondents are in disagreement and 67% are in agreement, making the resulting score well below the point of neutrality. This issue warrants further examination.

46. If employees in my work group did an outstanding job they would receive appropriate recognition or rewards.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	82	49	22	25	3	5	181
%	45%	27%	12%	14%	2%	n/a	100%
Cum%	45%	72%	85%	98%	100%	n/a	
Mean	1.99						

This item deals with employees' perception of whether they receive proper recognition for their work. It is common today for employees to sense that they do not receive adequate recognition and awards for outstanding performance. For this item, 72% of respondents are in disagreement and 15% are in agreement. This is one of the ten weakest scores for the HEC survey and warrants attention. It also reinforces some of the results in the panel relating to communication issues.

47. Employees generally receive support and encouragement from their immediate supervisors.

RESULTS

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (n)
n	61	25	27	52	17	0	182
%	34%	14%	15%	29%	9%	n/a	100%
Cum%	34%	47%	62%	91%	100%	n/a	
Mean	2.66						

If employees perceive that management will listen to their concerns and help resolve them, it reduces the risk of whistle-blowing. This item measures whether respondents believe that they will receive proper support and encouragement from their immediate supervisors. For this item, 47% of respondents are in disagreement and 38% are in agreement, bringing the result below the point of neutrality. This issue warrants further examination.

48.\* People in my work group are not encouraged to try new approaches for getting the job done.

RESULTS

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (n)
n	16	42	23	41	53	7	175
%	9%	24%	13%	23%	30%	n/a	100%
Cum%	9%	33%	46%	70%	100%	n/a	
Mean	3.42						
Reverse Mean	2.58						

This question examines whether or not employees feel that the department is open to change and new approaches, and whether they are encouraged to try new approaches in completing their assigned tasks. For this item, 33% of respondents are in disagreement and 54% are in agreement, which brings the score below the point of neutrality. As such, this issue warrants further examination.

49. My supervisor provides me with constructive suggestions on how to improve my performance.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [15]
n	56	38	29	48	14	1	185
%	30%	21%	16%	26%	8%	n/a	100%
Cum%	30%	51%	66%	92%	100%	n/a	
Mean	2.60						

Management attention to employee work performance is a good indicator of the relationship between management and the employees. Employees who feel that management takes an active interest in their performance will also be more willing to turn to management for problem resolution. For this item, 51% of respondents are in disagreement and 34% are in agreement, bringing the resulting score below the point of neutrality. This issue warrants further examination.

50. Confidence in management of my division is high.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [15]
n	91	40	15	19	8	0	173
%	53%	23%	9%	11%	5%	n/a	100%
Cum%	53%	76%	84%	95%	100%	n/a	
Mean	1.92						

This is one of several items in the survey that address different facets of the same issue: "Can management be relied upon to act in compliance with laws and regulations?" For this item, 76% of respondents are in disagreement and 16% are in agreement, resulting in one of the lower scores on the survey. This issue warrants further examination.

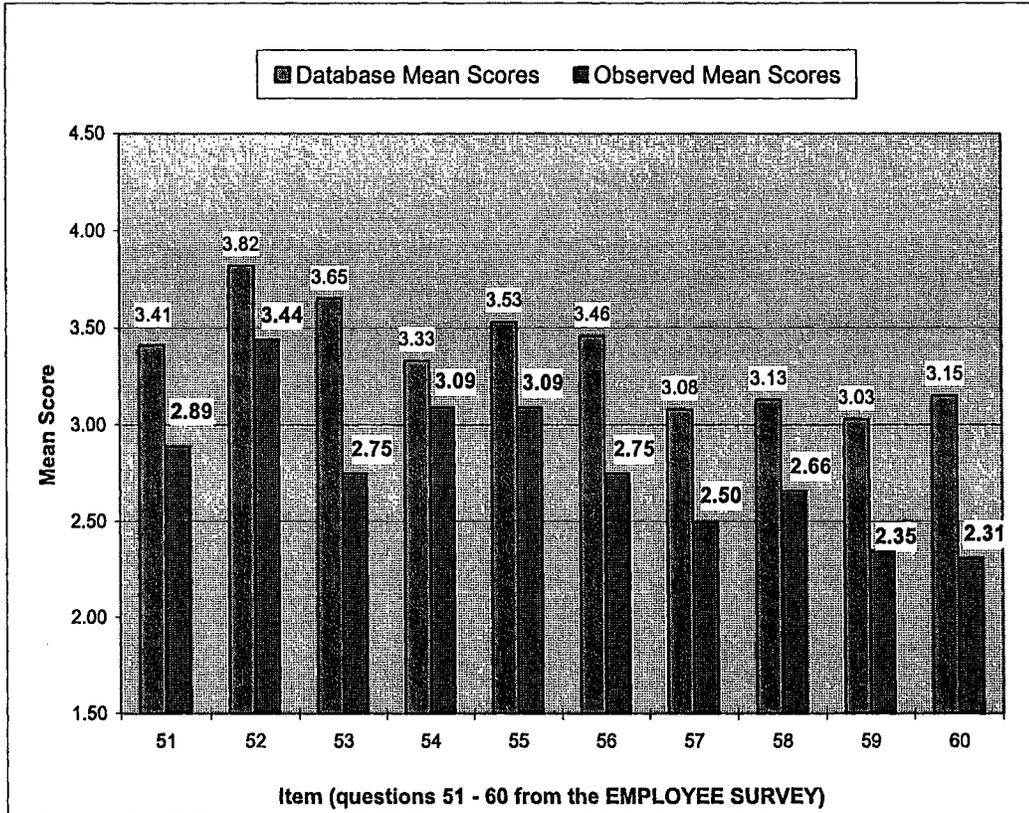
#### 4.6: HUMAN RESOURCES PRACTICES

The first line of defense for problem resolution outside the direct management chain is human resources management. As before, this panel is designed to measure employee confidence in using this resource. The more favorable the score, the more likely it is that employees will use this avenue to resolve concerns about compliance or other problems in the workplace. Conversely, the less positive the score in this panel, the greater the need to pursue alternative avenues for redress of concerns. Any evidence of employee reluctance to report problems through human resources underscores the importance of offering alternative channels for reporting. An employee Hotline is just one such alternative.

The overall mean for the Human Resources Practices panel is 2.77. This panel mean is below neutrality. The range of the individual item means for this panel is from 2.31 to 3.44. Three item means are above neutrality and seven are below neutrality. Although the panel Mean Score is below the point of neutrality, it is relatively stronger than the other panel results.

Human Resources Practices			
ITEM	QUESTION TEXT	ITEM MEAN	DATABASE MEAN
51	If I observed another employee being verbally abused or being made the subject of an "off color" joke by managers, I would feel comfortable reporting it to human resources or management.	2.89	3.41
52	The company would take aggressive action to address a reported sexual harassment matter.	3.44	3.82
53	Regardless of race, gender, or age, employees with similar qualifications are given the same chances for employment, training and promotion within my division.	2.75	3.65
54*	My actual job duties vary significantly from my current position.	3.09	3.33
55	Most of my actual job duties are covered by my job elements and performance standards and are clearly defined.	3.09	3.53
56	In performance discussions with my supervisor, my comments about my work are considered in my evaluations.	2.75	3.46
57*	I seldom receive helpful feedback about my job performance from my supervisor.	2.50	3.08
58	If some employees in my work group performed poorly, they would be subject to corrective action that was appropriate and fair.	2.66	3.13
59*	My performance ratings do not reflect my actual accomplishments and limitations.	2.35	3.03
60	Training opportunities are available to permit me to acquire the skills that I need to improve productivity.	2.31	3.15
Overall Panel Mean		2.77	3.36

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Human Resources Practices**



**HUMAN RESOURCES PRACTICES**

51. If I observed another employee being verbally abused or being made the subject of an “off color” joke by managers, I would feel comfortable reporting it to human resources or management.

RESULTS

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [1-5]
n	46	34	22	43	32	7	177
%	26%	19%	12%	24%	18%	n/a	100%
Cum%	26%	45%	58%	82%	100%	n/a	
Mean	2.89						

This compliance issue tests employee confidence in management’s ability to confront employee-based problems directed to them. For this item, 45% of respondents are in disagreement and 42% are in agreement, which is slightly below the point of neutrality. This issue warrants further examination.

52. The company would take aggressive action to address a reported sexual harassment matter.

RESULTS

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [1-5]
n	18	18	27	57	32	33	152
%	12%	12%	18%	38%	21%	n/a	100%
Cum%	12%	24%	41%	79%	100%	n/a	
Mean	3.44						

Sexual harassment costs corporate America billions of dollars annually, and this issue is one of the major sources of external reporting in the country today. This question gauges whether or not employees believe that they can raise sensitive issues to management for proper resolution, or if the department environment invites external reporting as the only way to resolve such problems. For this item, 24% of respondents are in disagreement and 59% are in agreement. This is one of the more positive results of the survey and should be considered a strength of HEC.

53. Regardless of race, gender, or age, employees with similar qualifications are given the same chances for employment, training, and promotion within my division.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [n=5]
n	55	30	19	36	31	15	171
%	32%	18%	11%	21%	18%	n/a	100%
Cum%	32%	50%	61%	82%	100%	n/a	
Mean	2.75						

This is a “fairness in the workplace” question. As with other questions of this type in the survey, it is designed to measure employee confidence in management’s addressing of inequities. For this item, 50% of respondents are in disagreement and 39% are in agreement, which is below the point of neutrality. This issue warrants further examination.

54.\*My actual job duties vary significantly from my current position.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [n=5]
n	15	65	39	34	23	3	176
%	9%	37%	22%	19%	13%	n/a	100%
Cum%	9%	45%	68%	87%	100%	n/a	
Mean	2.91						
Reverse Mean	3.09						

This item is one of several statements related to whether employees receive proper guidance regarding what is expected of them in the workplace. This element is designed to surface deviations from acceptable practice. If employees are frequently asked to perform tasks that are not part of the job description, it might raise compliance issues. For this item, 45% of respondents are in disagreement and 32% are in agreement, resulting in an item score above the point of neutrality. However, this score can be strengthened.

55. Most of my actual job duties are covered by my job elements and performance standards and are clearly defined.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (n)
n	24	31	40	69	13	3	177
%	14%	18%	23%	39%	7%	n/a	100%
Cum%	14%	31%	54%	93%	100%	n/a	
Mean	<b>3.09</b>						

This item is a restatement of the previous issue, and seeks to evaluate how clearly job elements and performance standards are defined. It addresses whether employees are receiving proper guidance as to what is expected of them in the workplace. For this item, 31% of respondents are in disagreement and 46% are in agreement. Although above neutrality, this score can be strengthened by additional written guidance and training as suggested in item #32 *supra*.

56. In performance discussions with my supervisor, my comments about my work are considered in my evaluations.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (n)
n	35	50	29	45	16	10	175
%	20%	29%	17%	26%	9%	n/a	100%
Cum%	20%	49%	65%	91%	100%	n/a	
Mean	<b>2.75</b>						

This is one of several statements which relate to confidence in raising issues with management. The more negative the scoring on these statements, the greater the department's vulnerability to employees reporting outside the department channels. For this item, 49% of respondents are in disagreement and 35% are in agreement, below the point of neutrality. This issue warrants further examination.

57.\* I seldom receive helpful feedback about my job performance from my supervisor.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	12	41	27	55	52	0	187
%	6%	22%	14%	29%	28%	n/a	100%
Cum%	6%	28%	43%	72%	100%	n/a	
Mean	3.50						
Reverse Mean	2.50						

This reverse score item relates to employee confidence regarding whether immediate management is providing adequate guidance in the workplace. A high score here shows that respondents usually receive helpful feedback from their supervisors. Conversely, a weak score suggests that more feedback loops should be implemented to improve communication and job performance. For this item, 28% of respondents are in disagreement and 57% are in agreement, resulting in a score well below the point of neutrality. This issue warrants further examination.

58. If some employees in my work group performed poorly, they would be subject to corrective action that is appropriate and fair.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	52	38	25	51	15	6	181
%	29%	21%	14%	28%	8%	n/a	100%
Cum%	29%	50%	64%	92%	100%	n/a	
Mean	2.66						

This statement is designed to measure the willingness to address problems in the department. For this item, 50% of respondents are in disagreement and 36% are in agreement, significantly below the point of neutrality. This issue warrants further examination.

59.\* My performance ratings do not reflect my actual accomplishments and limitations.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	13	34	19	43	65	7	174
%	7%	20%	11%	25%	37%	n/a	100%
Cum%	7%	27%	38%	63%	100%	n/a	
Mean	3.65						
Reverse Mean	2.35						

This item addresses the communication between human resources/management and the employee population. A poor score here would suggest that employees are dissatisfied with the way in which their performance ratings evaluate them. For this item, 27% of respondents are in disagreement and 62% are in agreement, resulting in an item score well below the point of neutrality. This issue warrants further examination.

60. Training opportunities are available to permit me to acquire the skills that I need to improve productivity.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	70	46	21	32	14	3	183
%	38%	25%	11%	17%	8%	n/a	100%
Cum%	38%	63%	75%	92%	100%	n/a	
Mean	2.31						

Employees who perceive that HEC is willing to provide the training and the programs necessary to improve job performance may feel a stronger loyalty to the department. This can encourage internal problem resolution. For this item, 63% of respondents are in disagreement and 25% are in agreement. This issue warrants further examination.

#### 4.7: FINANCIAL MANAGEMENT

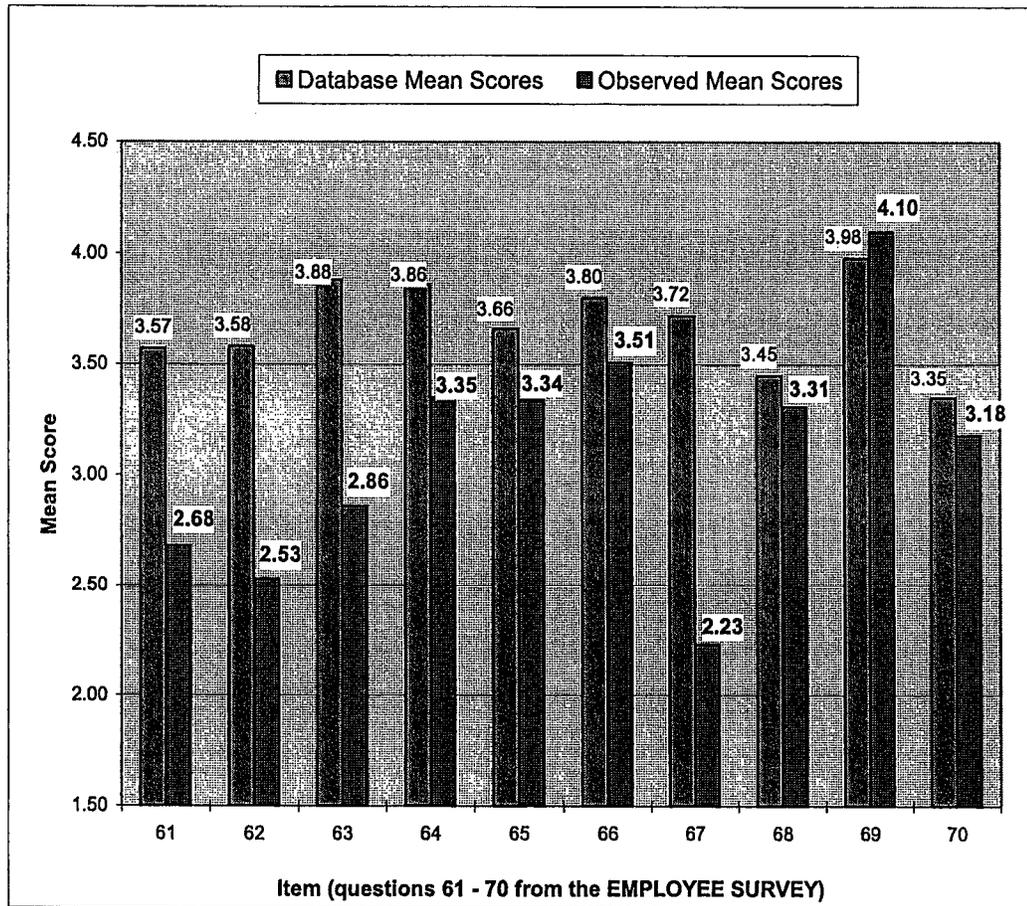
Employees are in a position to observe only very limited facets of this area. However, in some areas employees generally develop perceptions about the department, such as payroll-related activities. An important factor in measuring this dimension is the number of employees declining to answer questions, indicating an absence of significant knowledge of financial practices. This may be one reason why 59% of the "Don't Know" responses (550 of 927 total) occur in this particular panel. The value of analysis, therefore, is in the relative strength or weakness of the scores within the panel. Employees' overall perceptions, while not necessarily based on direct knowledge of financial practices, can reflect their confidence in management to carry out its duties responsibly and in compliance with rules and regulations.

The overall mean for the Financial Management panel is 3.11. This panel mean is above neutrality and has the strongest and most positive results of all the panels. The range of the individual item means for this panel is from 2.23 to 4.10. Six item means are above neutrality and four are below neutrality.

Financial Management			
ITEM	QUESTION TEXT	ITEM MEAN	DATABASE MEAN
61	The company follows practices and procedures designed to ensure accuracy and proper documentation of billing information.	2.68	3.57
62	Whenever anyone in the company finds mistakes in business records, management can be counted upon to take proper corrective action.	2.53	3.58
63	The company does a good job with maintaining an accurate and timely payroll operation.	2.86	3.88
64*	It is common for employees to use the company's computer(s) for other than company business.	3.35	3.86
65	The company has established proper policies and procedures that assure that company computers, systems and networks are not used improperly.	3.34	3.66
66	Employees of the company are careful not to misuse copyrighted materials and computer programs.	3.51	3.80
67	The company has a reputation for honesty and integrity in dealing with vendors, customers and payers.	2.23	3.72
68	Controls over the use of computers are carefully monitored so as to prevent their misuse.	3.31	3.45
69*	From time to time employees help themselves to company supplies, especially around the beginning of the school year, and Christmas.	4.10	3.98
70	If someone cuts corners or fails to follow established procedures, management or the audit staff is likely to discover it.	3.18	3.35
Overall Panel Mean		3.11	3.69

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Financial Management



## FINANCIAL MANAGEMENT

61. The company follows practices and procedures designed to assure accuracy and proper documentation of billing information.

### RESULTS

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (n)
n	27	13	27	24	6	87	97
%	28%	13%	28%	25%	6%	n/a	100%
Cum%	28%	41%	69%	94%	100%	n/a	
Mean	2.68						

This item is designed to meet several objectives. First and foremost, it is important to gain employee perspectives concerning compliance with proper billing practices. A second consideration is whether or not employees are receiving proper guidance as to what is expected of them in their workplace. A poor score on this item raises questions about both the adequacy of billing practices as well as the training and guidance offered to employees. For this item, 41% of respondents are in disagreement and 31% are in agreement, resulting in an item score below the point of neutrality. This issue warrants further examination.

62. Whenever anyone in the company finds mistakes in business records, management can be counted upon to take proper corrective action.

### RESULTS

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (n)
n	42	21	28	22	12	59	125
%	34%	17%	22%	18%	10%	n/a	100%
Cum%	34%	50%	73%	90%	100%	n/a	
Mean	2.53						

This statement is designed to measure employee perceptions of whether management acts to correct its mistakes. A poor score would raise concerns about management's attitude towards compliant behavior. For this item, 50% of respondents are in disagreement and 27% are in agreement. This is below the point of neutrality and warrants further examination.

63. The company does a good job with maintaining an accurate and timely payroll operation.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [1-5]
n	48	21	23	52	21	21	165
%	29%	13%	14%	32%	13%	n/a	100%
Cum%	29%	42%	56%	87%	100%	n/a	
Mean	2.86						

Employees are very sensitive to, and aware of, management practices that personally affect them. In this case, employees are asked to vote on their confidence in the payroll operation. For this item, 42% of respondents are in disagreement and 44% are in agreement. This issue warrants further examination.

64.\*It is common for employees to use the company's computer(s) for other than company business.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL [1-5]
n	33	43	24	25	17	43	142
%	23%	30%	17%	18%	12%	n/a	100%
Cum%	23%	54%	70%	88%	100%	n/a	
Mean	2.65						
Reverse Mean	3.35						

This is a common problem with companies and gives some insights into the ethics and compliance environment. Generally, a low score on this item suggests not only a problem with the misuse of department property, but also a poor attitude towards compliance. For this item, 54% of respondents are in disagreement and 30% are in agreement. This item score is well above the point of neutrality. This is a positive result.

65. The company has established proper policies and procedures that assure that company computers, systems and networks are not used improperly.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	20	11	34	70	16	33	151
%	13%	7%	23%	46%	11%	n/a	100%
Cum%	13%	21%	43%	89%	100%	n/a	
Mean	3.34						

This item focuses on department control over the computers and systems, as well as whether sufficient guidance is given to employees as to proper use of department property. For this item, 21% of respondents are in disagreement and 57% are in agreement. This is a positive result and can be contrasted with other written guidance that received a lower rating in item #32 *supra*.

66. Employees of the company are careful not to misuse copyrighted materials and computer programs.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	11	12	22	47	23	70	115
%	10%	10%	19%	41%	20%	n/a	100%
Cum%	10%	20%	39%	80%	100%	n/a	
Mean	3.51						

This statement addresses one of the most common violations of law in the United States today. It examines the level of compliance within the department, and how willing employees are to follow laws and regulations. The responses can also reflect attitudes about compliance with laws that are ill-enforced. For this item, 20% of respondents are in disagreement and 61% are in agreement. This is a very positive result.

67. The company has a reputation for honesty and integrity in dealing with vendors, customers and payers.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	57	18	24	13	12	59	124
%	46%	15%	19%	10%	10%	n/a	100%
Cum%	46%	60%	80%	90%	100%	n/a	
Mean	2.23						

This is a straight vote of confidence in the department's financial relations with other parties. A high score illustrates respondents' belief that HEC is very honest in its dealings with other parties, which is a strong vote of confidence in the department. For this item, 60% of respondents are in disagreement and 20% are in agreement, much lower than point of neutrality. This issue warrants further examination.

68. Controls over the use of computers are carefully monitored so as to prevent their misuse.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	19	12	33	49	21	50	134
%	14%	9%	25%	37%	16%	n/a	100%
Cum%	14%	23%	48%	84%	100%	n/a	
Mean	3.31						

This item addresses the use of internal controls by the department. A poor score suggests management may wish to address this issue in a broad context throughout the department. For this item, 23% of respondents are in disagreement and 52% are in agreement, a result well above neutrality.

69.\*From time to time employees help themselves to company supplies, especially around the beginning of the school year, or the holiday season.

**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	52	44	16	6	4	63	122
%	43%	36%	13%	5%	3%	n/a	100%
Cum%	43%	79%	92%	97%	100%	n/a	
Mean	1.90						
Reverse Mean	4.10						

This is both a compliance attitude question and one that relates to proper controls. A weak or poor score may reflect more serious attitudes about appropriate compliance. Often, employees feel that they are empowered to cheat or steal because others higher up in the department set the example. For this item, 79% of respondents are in disagreement and 8% are in agreement. This is an extremely positive score and an excellent result. This is one of the strongest results of the survey.

70. If someone cuts corners or fails to follow established procedures, management or the audit staff is likely to discover it.

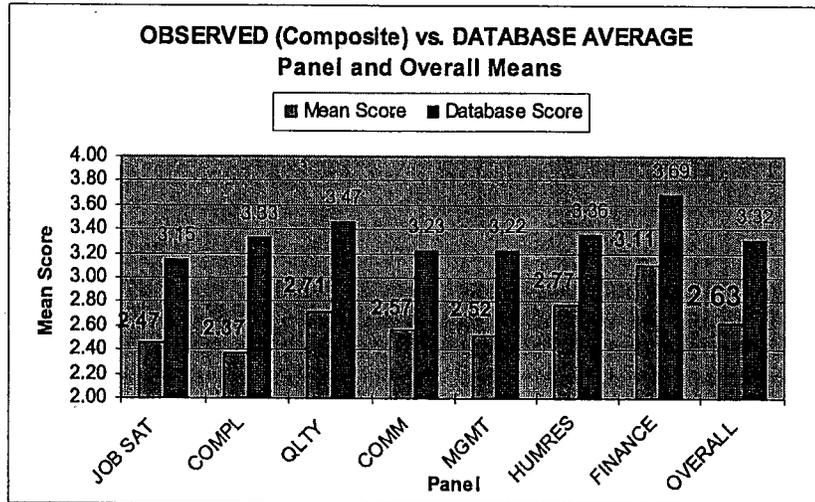
**RESULTS**

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Don't Know	
Score	1	2	3	4	5	Don't Know	TOTAL (1-5)
n	17	15	30	38	16	65	116
%	15%	13%	26%	33%	14%	n/a	100%
Cum%	15%	28%	53%	86%	100%	n/a	
Mean	3.18						

This item focuses on the perceived effectiveness of management controls, and also provides some indication of whether employees see management's commitment to following established procedures. A weak score on this item suggests that management may want to monitor or re-evaluate its enforcement mechanisms. For this item, 28% of respondents are in disagreement and 47% are in agreement. Although this score is above neutrality, it can be strengthened.

**GRAPHICAL SUMMARY OF SCORING RESULTS**

**GRAPH 1: Mean Scores of Houston Emergency Call Center**

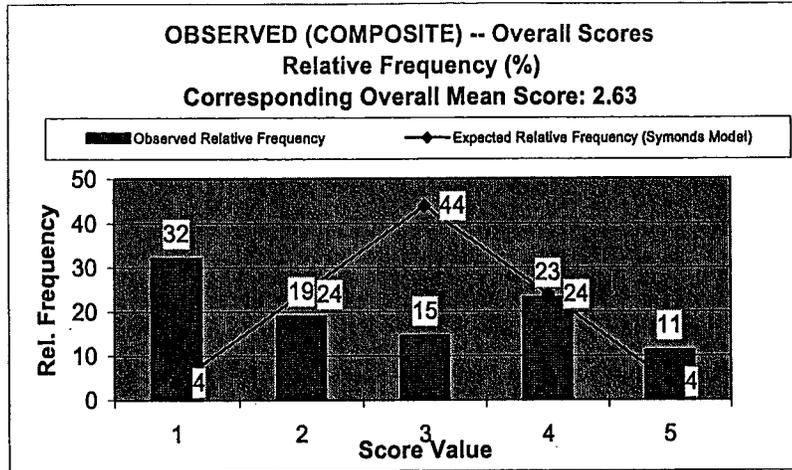


**Houston Emergency Call Center Panel Mean Scores**

Panel	HEC Mean Score	DATABASE Mean Score
Personal Job Satisfaction	2.47	3.15
Compliance with Laws and Regulations	2.37	3.33
Quality of Care/Service	2.71	3.47
Employee Communication	2.57	3.23
Management Practices	2.52	3.22
Human Resources Practices	2.77	3.36
Financial Management	3.11	3.69
OVERALL	2.63	3.32

GRAPH 1 depicts the mean scores for HEC, both for the different panels and for the overall survey. The Overall Mean corresponds to the frequency distribution of observed scores shown in GRAPH 2 below.

**GRAPH 2: Frequency Distribution of Scores Of Houston Emergency Call Center**



**Houston Emergency Call Center Overall Absolute And Relative Frequencies of Scores**

Score	Observed Absolute Frequency	Observed Relative Frequency	Expected Relative Frequency (Symonds)	Expected Relative Frequency (SMS model)
1	3833	32%	4%	10%
2	2275	19%	24%	17%
3	1772	15%	44%	18%
4	2775	23%	24%	39%
5	1349	11%	4%	15%
Don't Know	927			
Total 1- 5:	11981	100%	100%	100%
Overall Mean:		2.63		

GRAPH 2 presents the frequency distribution of scores across all the items in the HEC survey. The observed distribution of scores has a significant Chi Square<sup>3</sup>. The observed frequency distribution also deviates significantly from the industry model derived by SMSInc with a distribution of [10%, 17%, 18%, 39%, 15%] across the cluster of scores 1 through 5 (Chi Square = 6350.22).

<sup>3</sup> Chi Squares have been computed based on Symonds as the baseline model to evaluate the goodness of fit of the observed frequency versus an expected frequency model with a symmetric distribution. Symonds developed a rated scale model that matches the normal curve distribution (see G. P. Guilford, *Psychometric Methods*, 1<sup>st</sup> edition, Chapter 9: Rating Scale Methods). This means that in large random samples, four percent (4%) of the respondents are expected each in the categories One, i.e., "Strongly Disagree" and Five, i.e., "Strongly Agree;" twenty-four percent (24%) are expected in categories Two, i.e., "Disagree" and Four, i.e., "Agree;" and forty-four percent (44%) are expected in the central category Three, i.e., "Neutral." Departures from these percentages become statistically significant when they exceed the amount expected by chance. It is important to use an appropriate statistical test to support the claim that findings are "statistically significant." The deviation from this hypothesized distribution was reported as significant when Chi Squares were significant at  $\alpha = 1\%$ , unless stated otherwise. The critical value to test the entire scoring cluster of answers by the sum of Chi Squares for the five categories is:  $X_{\alpha=1\%, df=5-1=4} = 13.28$ .

Houston Emergency Call Center : Total Response Distribution

Item Mean /Reverse Item Mean	Reversed	Item Number	Strongly Disagree [1]	Disagree [2]	Neutral [3]	Agree [4]	Strongly Agree [5]	Don't Know [6]	Total Responses [1 to 5]
3.18		1	37	27	28	54	40	0	186
3.32	Y	2	33	66	24	32	22	6	177
3.99		3	8	18	20	60	79	0	185
2.12		4	91	37	10	29	15	3	182
1.72	Y	5	8	16	10	24	115	12	173
1.79		6	101	43	14	10	10	7	178
1.93	Y	7	11	16	20	33	97	8	177
1.78	Y	8	15	13	10	26	121	1	185
3.00		9	49	28	23	40	43	2	183
1.76		10	102	41	20	13	4	3	180
2.11	Y	11	14	26	16	39	90	0	185
2.21		12	76	39	31	19	15	6	180
2.21		13	80	31	19	32	11	11	173
2.36		14	62	51	24	34	12	2	183
2.19	Y	15	15	21	21	41	75	11	173
2.39	Y	16	19	33	20	42	71	2	185
2.57	Y	17	15	31	28	15	54	44	143
2.53	Y	18	20	43	17	35	67	3	182
2.99		19	29	26	31	48	17	35	151
2.31		20	70	44	18	34	13	8	179
2.87		21	47	32	30	52	25	1	186
2.98		22	35	36	29	56	23	3	179
2.40	Y	23	13	36	21	45	62	7	177
2.33		24	70	40	25	33	13	3	181
2.63		25	53	30	42	40	15	4	180
2.54	Y	26	17	32	30	26	57	21	162
3.79		27	10	16	24	87	48	1	185
2.48		28	65	31	40	30	18	1	184
2.30		29	65	38	33	27	10	10	173
2.73	Y	30	17	35	32	34	39	27	157
2.28		31	71	44	30	30	11	1	186
2.59		32	54	42	25	53	11	1	185
2.71		33	52	33	28	58	13	1	184
1.95	Y	34	6	18	21	54	84	4	183
2.47		35	62	45	17	51	10	1	185
3.90		36	13	13	17	80	63	0	186
1.93	Y	37	5	13	20	67	74	3	179
2.99	Y	38	16	65	29	33	33	6	176
2.73	Y	39	11	46	48	27	44	6	176
2.11	Y	40	12	21	25	46	82	0	186
2.28		41	75	39	25	34	11	0	184
2.62	Y	42	16	50	23	34	58	3	181
2.44	Y	43	10	43	26	39	63	4	181
3.93		44	8	10	33	68	65	0	184

Houston Emergency Call Center : Total Response Distribution

Item Mean /Reverse Item Mean	Reversed	Item Number	Strongly Disagree [1]	Disagree [2]	Neutral [3]	Agree [4]	Strongly Agree [5]	Don't Know [6]	Total Responses [1 to 5]
2.10	Y	45	18	22	20	21	100	5	181
1.99		46	82	49	22	25	3	5	181
2.66		47	61	25	27	52	17	0	182
2.58	Y	48	16	42	23	41	53	7	175
2.60		49	56	38	29	48	14	1	185
1.92		50	91	40	15	19	8	0	173
2.89		51	46	34	22	43	32	7	177
3.44		52	18	18	27	57	32	33	152
2.75		53	55	30	19	36	31	15	171
3.09	Y	54	15	65	39	34	23	3	176
3.09		55	24	31	40	69	13	3	177
2.75		56	35	50	29	45	16	10	175
2.50	Y	57	12	41	27	55	52	0	187
2.66		58	52	38	25	51	15	6	181
2.35	Y	59	13	34	19	43	65	7	174
2.31		60	70	46	21	32	14	3	183
2.68		61	27	13	27	24	6	87	97
2.53		62	42	21	28	22	12	59	125
2.86		63	48	21	23	52	21	21	165
3.35	Y	64	33	43	24	25	17	43	142
3.34		65	20	11	34	70	16	33	151
3.51		66	11	12	22	47	23	70	115
2.23		67	57	18	24	13	12	59	124
3.31		68	19	12	33	49	21	50	134
4.10	Y	69	52	44	16	6	4	63	122
3.18		70	17	15	30	38	16	65	116

**Total Response Distribution**  
*(distribution is reversed for the Reverse Mean Items)*

[1]	[2]	[3]	[4]	[5]	[6]	TOTAL [1 to 5]
3838	2273	1742	2779	1349	927	11981

Overall Mean: 2.63

HEC A - 911 Telecommunicators: Total Response Distribution

Item Mean /Reverse Item Mean	Reversed	Item Number	Strongly Disagree [1]	Disagree [2]	Neutral [3]	Agree [4]	Strongly Agree [5]	Don't Know [6]	Total Responses [1 to 5]
2.69		1	4	2	3	2	2	0	13
3.25	Y	2	3	3	1	4	1	1	12
3.31		3	1	3	3	3	3	0	13
1.77		4	9	1	1	1	1	0	13
1.75	Y	5	1	1	1	0	9	1	12
2.17		6	7	0	2	2	1	1	12
1.62	Y	7	0	1	1	3	8	0	13
1.54	Y	8	0	2	0	1	10	0	13
1.83		9	6	3	2	1	0	1	12
1.45		10	8	1	2	0	0	1	11
2.25	Y	11	0	3	2	2	5	0	12
2.15		12	6	2	3	1	1	0	13
2.08		13	6	2	1	3	0	1	12
2.23		14	5	4	1	2	1	0	13
2.27	Y	15	2	1	1	1	6	2	11
3.46	Y	16	4	4	2	0	3	0	13
2.50	Y	17	1	4	1	0	6	1	12
2.42	Y	18	1	3	1	2	5	1	12
3.08		19	1	4	3	3	2	0	13
1.91		20	7	2	0	0	2	2	11
2.54		21	4	3	2	3	1	0	13
2.45		22	4	2	1	4	0	1	11
2.45	Y	23	0	4	2	0	5	2	11
2.25		24	4	4	1	3	0	1	12
2.54		25	4	3	2	3	1	0	13
3.20	Y	26	3	3	0	1	3	3	10
3.46		27	1	2	2	6	2	0	13
2.00		28	5	5	0	1	1	0	12
1.90		29	5	3	1	0	1	2	10
2.88	Y	30	1	3	1	0	3	4	8
2.15		31	5	3	3	2	0	0	13
2.67		32	3	4	1	2	2	1	12
2.62		33	5	0	3	5	0	0	13
1.85	Y	34	0	0	4	3	6	0	13
2.38		35	6	1	1	5	0	0	13
3.46		36	0	3	3	5	2	0	13
2.31	Y	37	2	1	0	6	4	0	13
3.00	Y	38	1	6	1	0	4	1	12
2.69	Y	39	0	4	4	2	3	0	13
2.00	Y	40	0	3	1	2	7	0	13
2.31		41	6	2	1	3	1	0	13
2.17	Y	42	0	2	2	4	4	0	12
2.08	Y	43	0	3	1	2	6	1	12
3.31		44	3	1	0	7	2	0	13

HEC A - 911 Telecommunicators: Total Response Distribution

Item Mean / Reverse Item Mean	Reversed	Item Number	Strongly Disagree [1]	Disagree [2]	Neutral [3]	Agree [4]	Strongly Agree [5]	Don't Know [6]	Total Responses [1 to 5]
1.45	Y	45	0	1	1	0	9	2	11
1.58		46	8	2	1	1	0	1	12
2.08		47	7	1	2	3	0	0	13
2.00	Y	48	1	1	1	3	6	1	12
2.17		49	7	0	2	2	1	1	12
1.50		50	8	2	2	0	0	0	12
2.92		51	3	3	2	2	3	0	13
3.25		52	3	1	0	6	2	1	12
2.42		53	6	0	1	5	0	1	12
3.67	Y	54	0	10	0	2	0	0	12
3.08		55	0	4	4	5	0	0	13
2.00		56	6	2	2	2	0	1	12
2.31	Y	57	2	1	0	6	4	0	13
2.00		58	6	2	2	2	0	1	12
1.75	Y	59	1	0	1	3	7	1	12
1.83		60	6	3	2	1	0	1	12
2.13		61	5	0	0	3	0	5	8
2.00		62	5	2	0	1	1	4	9
2.75		63	4	2	1	3	2	1	12
2.67	Y	64	1	3	0	2	3	4	9
2.67		65	3	1	1	4	0	4	9
2.63		66	3	1	0	4	0	5	8
2.00		67	6	1	0	3	0	3	10
2.63		68	3	1	1	2	1	5	8
4.33	Y	69	4	4	1	0	0	4	9
3.22		70	1	1	3	3	1	4	9

**Total Response Distribution**  
(distribution is reversed for the Reverse Mean Items)

[1]	[2]	[3]	[4]	[5]	[6]	TOTAL [1 to 5]
332	138	98	190	65	78	823

Overall Mean: 2.41

HEC B - Police Telecommunicators: Total Response Distribution

Item Mean /Reverse Item Mean	Reversed	Item Number	Strongly Disagree [1]	Disagree [2]	Neutral [3]	Agree [4]	Strongly Agree [5]	Don't Know [6]	Total Responses [1 to 5]
2.07		1	21	7	9	3	3	0	43
3.00	Y	2	7	9	6	9	7	3	38
3.95		3	3	4	4	12	19	0	42
1.39		4	32	5	2	1	1	2	41
1.29	Y	5	3	0	0	0	39	1	42
1.68		6	28	7	1	1	4	2	41
1.81	Y	7	6	0	3	4	29	1	42
1.44	Y	8	3	1	1	2	36	0	43
2.86		9	16	4	6	2	14	1	42
1.41		10	32	6	0	1	2	0	41
1.65	Y	11	3	2	2	6	30	0	43
1.59		12	29	5	4	1	2	2	41
1.29		13	33	5	2	1	0	1	41
1.68		14	22	12	5	2	0	1	41
1.63	Y	15	2	2	1	8	25	3	38
1.95	Y	16	3	4	3	10	22	1	42
1.64	Y	17	2	0	4	2	20	15	28
1.91	Y	18	2	5	4	8	24	0	43
2.12		19	13	2	5	4	1	18	25
1.75		20	26	6	3	2	3	3	40
2.45		21	17	6	8	5	6	1	42
2.50		22	13	8	9	6	4	1	40
2.15	Y	23	3	6	4	7	19	4	39
1.61		24	26	8	4	3	0	0	41
2.10		25	19	6	7	5	2	3	39
1.74	Y	26	3	0	4	8	23	5	38
3.88		27	1	4	7	16	13	1	41
1.55		28	29	6	5	1	1	1	42
1.76		29	24	4	4	4	1	5	37
2.24	Y	30	2	4	6	9	12	10	33
1.67		31	27	6	7	3	0	0	43
2.09		32	20	9	5	8	1	0	43
2.39		33	18	4	6	11	2	1	41
1.69	Y	34	2	2	3	9	26	1	42
1.95		35	23	9	2	8	1	0	43
3.77		36	7	1	3	16	16	0	43
1.38	Y	37	0	1	2	8	28	1	39
3.08	Y	38	6	12	5	9	6	3	38
2.25	Y	39	0	6	13	6	15	2	40
1.49	Y	40	1	2	2	7	31	0	43
1.56		41	31	6	1	4	1	0	43
1.67	Y	42	3	1	4	5	29	1	42
2.13	Y	43	5	1	6	10	18	2	40
3.63		44	2	3	14	11	11	0	41

HEC B - Police Telecommunicators: Total Response Distribution

Item Mean / Reverse Item Mean	Reversed	Item Number	Strongly Disagree [1]	Disagree [2]	Neutral [3]	Agree [4]	Strongly Agree [5]	Don't Know [6]	Total Responses [1 to 5]
1.36	Y	45	1	0	2	7	32	1	42
1.10		46	38	4	0	0	0	1	42
2.24		47	22	2	7	8	3	0	42
2.35	Y	48	6	2	9	6	17	2	40
2.58		49	15	5	8	13	2	0	43
1.35		50	32	9	0	2	0	0	43
2.24		51	20	3	5	6	4	5	38
2.82		52	5	5	10	6	2	15	28
2.05		53	21	4	5	3	4	6	37
3.18	Y	54	7	11	8	8	5	2	39
2.84		55	10	4	10	10	4	2	38
2.26		56	15	11	4	6	3	4	39
2.09	Y	57	3	2	9	11	18	0	43
1.98		58	24	5	4	5	3	2	41
1.83	Y	59	4	0	5	7	24	1	40
1.77		60	23	11	6	2	1	0	43
1.73		61	9	1	5	0	0	27	15
2.27		62	13	1	7	2	3	16	26
2.59		63	12	3	6	8	3	11	32
3.50	Y	64	10	6	2	3	5	17	26
3.00		65	7	1	7	9	3	15	27
3.25		66	5	0	3	9	3	23	20
1.29		67	25	8	1	0	0	9	34
3.67		68	3	1	6	9	8	16	27
4.48	Y	69	17	4	0	0	2	20	23
3.67		70	2	1	5	3	7	24	18

**Total Response Distribution**  
*(distribution is reversed for the Reverse Mean Items)*

[1]	[2]	[3]	[4]	[5]	[6]	TOTAL [1 to 5]
1355	391	330	315	265	315	2656

Overall Mean: 2.15

HEC C - Police Dispatchers: Total Response Distribution

Item Mean /Reverse Item Mean	Reversed	Item Number	Strongly Disagree [1]	Disagree [2]	Neutral [3]	Agree [4]	Strongly Agree [5]	Don't Know [6]	Total Responses [1 to 5]
3.07		1	8	5	3	5	9	0	30
3.29	Y	2	6	9	4	5	4	1	28
4.27		3	2	0	3	8	17	0	30
1.57		4	20	4	1	2	1	0	28
1.22	Y	5	0	1	0	3	23	2	27
1.34		6	23	4	1	0	1	0	29
1.18	Y	7	0	1	0	2	25	1	28
1.45	Y	8	2	1	0	2	24	0	29
2.90		9	9	4	3	9	5	0	30
1.31		10	23	3	3	0	0	0	29
1.63	Y	11	1	1	2	8	18	0	30
1.63		12	21	3	3	2	1	0	30
1.70		13	16	7	2	0	2	3	27
1.80		14	17	6	3	4	0	0	30
1.66	Y	15	1	1	2	8	17	1	29
1.90	Y	16	2	2	3	7	16	0	30
2.17	Y	17	1	3	4	6	9	7	23
2.25	Y	18	3	4	3	5	13	0	28
2.63		19	6	6	5	5	2	5	24
1.97		20	14	7	5	1	2	1	29
2.10		21	14	6	5	3	2	0	30
2.54		22	8	10	2	3	5	0	28
1.70	Y	23	0	3	2	6	16	0	27
1.62		24	20	4	3	0	2	1	29
1.73		25	16	8	4	2	0	0	30
1.68	Y	26	1	1	3	4	16	3	25
3.57		27	4	1	6	12	7	0	30
2.10		28	14	4	8	3	1	0	30
1.80		29	18	5	3	3	1	0	30
2.04	Y	30	3	2	2	6	14	2	27
1.80		31	16	9	1	3	1	0	30
2.13		32	16	2	4	8	0	0	30
2.72		33	7	6	6	8	2	0	29
1.37	Y	34	0	0	1	9	20	0	30
2.14		35	11	9	2	5	1	1	28
3.90		36	2	2	5	9	12	0	30
1.60	Y	37	0	1	0	15	14	0	30
2.79	Y	38	1	8	8	6	5	1	28
2.57	Y	39	1	6	9	4	8	1	28
1.93	Y	40	2	1	3	11	13	0	30
1.76		41	19	3	4	1	2	0	29
2.71	Y	42	1	9	7	3	8	1	28
1.83	Y	43	2	2	3	5	18	0	30
4.13		44	2	0	5	8	15	0	30

HEC C - Police Dispatchers: Total Response Distribution

Item Mean /Reverse Item Mean	Reversed	Item Number	Strongly Disagree [1]	Disagree [2]	Neutral [3]	Agree [4]	Strongly Agree [5]	Don't Know [6]	Total Responses [1 to 5]
1.97	Y	45	3	3	3	1	19	1	29
1.90		46	13	10	4	3	0	0	30
2.04		47	14	5	3	3	2	0	27
2.44	Y	48	2	4	3	10	6	3	25
1.90		49	16	8	2	1	3	0	30
1.54		50	19	4	1	0	2	0	26
2.76		51	9	7	1	6	6	0	29
2.64		52	6	5	5	3	3	7	22
2.40		53	10	5	4	2	4	4	25
3.23	Y	54	3	10	6	4	3	1	26
3.25		55	4	4	3	15	2	0	28
2.45		56	8	9	5	5	2	0	29
2.23	Y	57	1	5	5	8	11	0	30
2.29		58	11	5	6	5	1	2	28
2.38	Y	59	2	5	3	11	8	0	29
1.72		60	16	8	3	1	1	1	29
2.60		61	4	2	6	2	1	15	15
2.00		62	8	5	2	3	0	11	18
1.75		63	18	3	4	2	1	2	28
4.29	Y	64	13	7	2	2	0	5	24
3.40		65	3	1	8	9	4	4	25
3.86		66	0	2	3	4	5	15	14
1.68		67	12	3	2	2	0	9	19
3.24		68	3	2	7	5	4	7	21
4.43	Y	69	12	9	2	0	0	7	23
2.81		70	5	4	4	6	2	9	21

**Total Response Distribution**  
(distribution is reversed for the Reverse Mean Items)

[1]	[2]	[3]	[4]	[5]	[6]	TOTAL [1 to 5]
833	361	243	280	197	134	1914

Overall Mean: 2.29

HEC D - HFD Dispatchers: Total Response Distribution

Item Mean /Reverse Item Mean	Reversed	Item Number	Strongly Disagree [1]	Disagree [2]	Neutral [3]	Agree [4]	Strongly Agree [5]	Don't Know [6]	Total Responses [1 to 5]
3.78		1	2	1	4	14	6	0	27
3.40	Y	2	3	13	3	3	3	1	25
3.96		3	0	2	4	13	7	0	26
3.04		4	6	7	0	8	6	0	27
2.29	Y	5	3	3	1	8	9	3	24
2.38		6	7	9	5	3	2	1	26
2.72	Y	7	2	7	4	6	6	1	25
2.33	Y	8	4	2	4	6	11	0	27
3.40		9	3	4	3	10	5	0	25
2.12		10	9	8	6	3	0	1	26
2.35	Y	11	1	7	2	6	10	0	26
2.74		12	7	7	4	4	5	0	27
3.20		13	5	3	3	10	4	1	25
2.89		14	3	8	6	9	1	0	27
2.30	Y	15	1	3	6	10	7	0	27
2.30	Y	16	0	4	6	11	6	0	27
2.56	Y	17	0	6	9	3	7	2	25
2.77	Y	18	0	11	3	7	5	1	26
3.27		19	2	4	7	11	2	1	26
2.85		20	4	8	3	10	1	1	26
3.15		21	4	5	3	13	2	0	27
3.67		22	2	2	5	12	6	0	27
2.56	Y	23	1	6	5	10	5	0	27
2.81		24	4	9	4	6	3	1	26
3.19		25	4	3	8	8	4	0	27
2.96	Y	26	1	9	7	4	4	1	25
4.07		27	0	2	3	13	9	0	27
3.65		28	2	0	8	11	5	0	26
2.69		29	4	8	7	6	1	0	26
3.38	Y	30	2	10	8	3	1	2	24
2.70		31	6	7	5	7	2	0	27
3.26		32	2	6	4	13	2	0	27
2.93		33	4	7	6	7	3	0	27
2.46	Y	34	0	6	3	11	4	3	24
2.96		35	3	8	5	9	2	0	27
3.96		36	2	1	1	15	8	0	27
2.04	Y	37	0	2	2	16	5	2	25
3.04	Y	38	3	9	3	6	4	1	25
2.74	Y	39	1	8	7	5	6	0	27
2.67	Y	40	2	5	7	8	5	0	27
3.04		41	2	7	8	8	2	0	27
3.07	Y	42	3	11	3	5	5	0	27
2.96	Y	43	0	12	4	7	3	1	26
4.07		44	1	1	2	14	9	0	27

HEC D - HFD Dispatchers: Total Response Distribution

Item Mean (Reverse Item Mean)	Reversed	Item Number	Strongly Disagree [1]	Disagree [2]	Neutral [3]	Agree [4]	Strongly Agree [5]	Don't Know [6]	Total Responses [1 to 5]
2.30	Y	45	1	4	6	7	9	0	27
2.22		46	9	9	4	4	1	0	27
3.33		47	4	4	5	7	7	0	27
2.62	Y	48	0	11	2	5	8	1	26
2.70		49	5	7	8	5	2	0	27
2.12		50	8	11	4	2	1	0	26
3.15		51	4	6	3	10	4	0	27
3.48		52	2	4	4	10	5	2	25
3.19		53	4	6	4	7	6	0	27
3.00	Y	54	1	10	8	4	4	0	27
3.37		55	1	4	8	12	2	0	27
3.00		56	0	10	8	4	3	2	25
2.70	Y	57	1	8	4	10	4	0	27
3.00		58	3	7	6	9	2	0	27
2.71	Y	59	0	9	1	12	2	2	24
2.85		60	3	11	3	7	3	0	27
2.89		61	2	5	6	5	1	7	19
2.62		62	3	7	8	1	2	6	21
2.92		63	5	5	6	7	3	1	26
2.72	Y	64	0	7	7	8	3	2	25
3.40		65	1	3	7	13	1	2	25
3.48		66	1	3	8	6	5	4	23
2.89		67	5	1	8	1	4	7	19
3.26		68	2	3	7	9	2	4	23
3.90	Y	69	4	11	4	1	0	6	20
2.73		70	3	6	8	4	1	5	22

**Total Response Distribution**  
(distribution is reversed for the Reverse Mean Items)

[1]	[2]	[3]	[4]	[5]	[6]	TOTAL [1 to 5]
289	421	348	554	186	75	1798

Overall Mean: 2.96

HEC E - Fire/EMS Telecommunicators: Total Response Distribution

Item Mean /Reverse Item Mean	Reversed	Item Number	Strongly Disagree [1]	Disagree [2]	Neutral [3]	Agree [4]	Strongly Agree [5]	Don't Know [6]	Total Responses [1 to 5]
3.90		1	2	0	4	7	8	0	21
3.14	Y	2	3	7	3	6	2	0	21
4.19		3	1	2	1	5	12	0	21
2.14		4	8	7	1	5	0	0	21
1.21	Y	5	0	1	0	1	17	2	19
1.57		6	13	6	1	0	1	0	21
1.62	Y	7	1	0	1	7	12	0	21
1.15	Y	8	0	0	0	3	17	1	20
3.10		9	4	4	4	4	5	0	21
2.00		10	9	6	3	3	0	0	21
1.86	Y	11	0	2	3	6	10	0	21
1.84		12	8	8	1	2	0	1	19
1.39		13	13	3	2	0	0	2	18
2.20		14	10	2	3	4	1	0	20
1.63	Y	15	1	0	2	4	12	1	19
1.90	Y	16	1	3	1	4	12	0	21
2.19	Y	17	0	2	5	3	6	5	16
1.90	Y	18	0	4	1	5	11	0	21
2.94		19	2	3	5	6	0	5	16
1.81		20	9	9	1	2	0	0	21
3.14		21	5	2	3	7	4	0	21
3.40		22	3	2	3	8	4	1	20
2.67	Y	23	2	4	3	9	3	0	21
2.65		24	7	4	1	5	3	0	20
2.84		25	6	2	3	5	3	0	19
2.65	Y	26	0	5	5	3	4	4	17
3.38		27	2	4	1	12	2	0	21
2.38		28	8	3	6	2	2	0	21
2.75		29	4	5	5	4	2	1	20
3.06	Y	30	2	4	6	3	2	4	17
2.33		31	8	4	4	4	1	0	21
2.19		32	8	6	2	5	0	0	21
2.19		33	7	8	1	5	0	0	21
1.71	Y	34	1	1	2	4	13	0	21
2.71		35	6	4	2	8	1	0	21
3.90		36	2	1	0	12	6	0	21
1.71	Y	37	0	2	2	5	12	0	21
3.10	Y	38	1	9	5	3	3	0	21
2.68	Y	39	1	4	7	2	5	1	19
1.67	Y	40	0	1	2	7	11	0	21
2.00		41	9	5	5	2	0	0	21
2.30	Y	42	0	6	1	6	7	1	20
2.57	Y	43	0	7	4	4	6	0	21
4.14		44	0	2	3	6	10	0	21

HEC E - Fire/EMS Telecommunicators: Total Response Distribution

Item Mean /Reverse Item Mean	Reversed	Item Number	Strongly Disagree [1]	Disagree [2]	Neutral [3]	Agree [4]	Strongly Agree [5]	Don't Know [6]	Total Responses [1 to 5]
1.57	Y	45	2	1	0	1	17	0	21
1.95		46	10	6	2	2	1	0	21
1.86		47	10	6	3	2	0	0	21
2.30	Y	48	0	6	2	4	8	0	20
2.57		49	5	6	3	7	0	0	21
1.84		50	11	4	1	2	1	0	19
2.50		51	5	7	3	3	2	1	20
3.61		52	1	1	5	8	3	3	18
2.33		53	9	5	0	5	2	0	21
3.05	Y	54	1	7	8	2	3	0	21
2.90		55	5	3	2	9	1	1	20
3.00		56	3	6	1	8	2	1	20
2.62	Y	57	0	6	6	4	5	0	21
2.38		58	6	7	2	6	0	0	21
2.11	Y	59	1	5	0	2	11	0	19
1.90		60	10	6	2	3	0	0	21
2.33		61	3	1	4	1	0	12	9
2.44		62	7	1	3	4	1	5	16
2.76		63	5	4	4	7	1	0	21
3.19	Y	64	4	2	5	3	2	5	16
2.77		65	3	1	5	4	0	8	13
3.29		66	0	1	3	3	0	14	7
2.17		67	4	2	6	0	0	9	12
3.20		68	2	1	1	5	1	11	10
3.00	Y	69	3	0	5	4	1	8	13
2.33		70	5	1	4	1	1	9	12

**Total Response Distribution**  
(distribution is reversed for the Reverse Mean Items)

[1]	[2]	[3]	[4]	[5]	[6]	TOTAL [1 to 5]
470	276	198	292	105	116	1341

Overall Mean: **2.47**

HEC F - 911/Police/Fire/EMS Supervisors: Total Response Distribution

Item Mean /Reverse Item Mean	Reversed	Item Number	Strongly Disagree [1]	Disagree [2]	Neutral [3]	Agree [4]	Strongly Agree [5]	Don't Know [6]	Total Responses [1 to 5]
3.00		1	0	5	3	3	1	0	12
2.92	Y	2	2	3	2	4	2	0	13
4.00		3	0	2	0	7	4	0	13
1.85		4	7	3	1	2	0	0	13
1.62	Y	5	0	0	2	4	7	0	13
1.23		6	10	3	0	0	0	0	13
2.23	Y	7	0	3	3	1	6	0	13
1.38	Y	8	0	1	0	2	10	0	13
2.46		9	5	3	0	4	1	0	13
1.46		10	8	4	1	0	0	0	13
2.00	Y	11	2	0	0	5	6	0	13
2.75		12	2	3	3	4	0	1	12
2.40		13	3	4	1	0	2	3	10
2.85		14	3	3	2	3	2	0	13
2.82	Y	15	1	4	1	2	3	2	11
2.38	Y	16	2	1	2	3	5	0	13
2.70	Y	17	2	2	1	1	4	3	10
2.15	Y	18	1	1	2	4	5	0	13
3.54		19	2	1	0	8	2	0	13
2.08		20	5	4	2	2	0	0	13
3.31		21	2	2	3	2	4	0	13
3.23		22	1	2	4	5	1	0	13
2.58	Y	23	2	3	0	2	5	1	12
2.15		24	6	2	3	1	1	0	13
2.85		25	2	3	4	3	1	0	13
2.69	Y	26	2	3	2	1	5	0	13
3.38		27	2	1	1	8	1	0	13
2.08		28	4	4	5	0	0	0	13
2.50		29	4	2	3	2	1	1	12
2.50	Y	30	1	2	2	4	3	1	12
2.00		31	5	3	3	1	0	1	12
2.69		32	3	4	2	2	2	0	13
2.15		33	6	3	1	2	1	0	13
1.85	Y	34	0	0	3	5	5	0	13
1.46		35	9	2	2	0	0	0	13
3.92		36	0	1	2	6	3	0	12
1.83	Y	37	1	0	1	4	6	0	12
2.25	Y	38	0	2	2	5	3	0	12
2.67	Y	39	1	3	2	3	3	0	12
2.00	Y	40	1	0	3	2	6	0	12
2.17		41	5	3	2	1	1	0	12
2.33	Y	42	1	1	2	5	3	0	12
2.33	Y	43	1	1	3	3	4	0	12
3.67		44	0	1	4	5	2	0	12

HEC F - 911/Police/Fire/EMS Supervisors: Total Response Distribution

Item Mean /Reverse Item Mean	Reversed	Item Number	Strongly Disagree [1]	Disagree [2]	Neutral [3]	Agree [4]	Strongly Agree [5]	Don't Know [6]	Total Responses [1 to 5]
2.25	Y	45	2	0	3	1	6	0	12
2.00		46	2	7	2	0	0	1	11
3.50		47	1	0	4	6	1	0	12
2.33	Y	48	0	1	5	3	3	0	12
2.33		49	4	4	1	2	1	0	12
2.00		50	6	2	1	1	1	0	11
3.00		51	0	5	3	1	2	1	11
4.00		52	0	1	1	6	3	1	11
2.55		53	2	4	3	1	1	1	11
2.17	Y	54	0	1	4	3	4	0	12
2.64		55	3	2	3	2	1	0	11
2.75		56	2	4	3	1	2	0	12
2.23	Y	57	1	2	0	6	4	0	13
3.54		58	1	3	1	4	4	0	13
1.83	Y	59	1	1	0	3	7	1	12
2.23		60	6	2	2	2	1	0	13
1.60		61	4	0	0	1	0	8	5
2.00		62	4	2	0	2	0	5	8
3.36		63	2	1	0	7	1	2	11
2.92	Y	64	1	4	2	3	2	1	12
3.00		65	3	2	1	6	1	0	13
3.14		66	1	2	1	1	2	6	7
2.14		67	4	1	0	1	1	6	7
2.55		68	4	1	2	4	0	2	11
4.00	Y	69	4	1	1	0	1	6	7
3.40		70	1	0	1	2	1	6	5

**Total Response Distribution**  
*(distribution is reversed for the Reverse Mean Items)*

[1]	[2]	[3]	[4]	[5]	[6]	TOTAL [1 to 5]
262	190	129	161	82	60	824

Overall Mean: 2.53

HEC G - HPD Classified Personnel: Total Response Distribution

Item Mean /Reverse Item Mean	Reversed	Item Number	Strongly Disagree [1]	Disagree [2]	Neutral [3]	Agree [4]	Strongly Agree [5]	Don't Know [6]	Total Responses [1 to 5]
3.36		1	0	3	2	5	1	0	11
3.82	Y	2	2	7	1	0	1	0	11
3.82		3	0	1	3	4	3	0	11
2.55		4	4	1	3	2	1	0	11
1.55	Y	5	0	0	2	2	7	0	11
1.30		6	7	3	0	0	0	1	10
2.44	Y	7	1	0	3	3	2	2	9
1.64	Y	8	0	0	2	3	6	0	11
2.36		9	3	4	2	1	1	0	11
1.64		10	7	2	1	1	0	0	11
2.73	Y	11	1	4	1	1	4	0	11
2.45		12	2	4	3	2	0	0	11
3.18		13	1	2	2	6	0	0	11
2.45		14	2	6	0	2	1	0	11
3.00	Y	15	1	3	3	3	1	0	11
2.82	Y	16	1	4	0	4	2	0	11
4.00	Y	17	1	7	1	0	0	2	9
4.09	Y	18	3	6	2	0	0	0	11
3.33		19	0	2	3	3	1	2	9
2.90		20	2	1	3	4	0	1	10
3.64		21	0	2	2	5	2	0	11
2.73		22	2	4	1	3	1	0	11
1.64	Y	23	0	1	0	4	6	0	11
2.55		24	3	3	2	2	1	0	11
2.55		25	1	4	5	1	0	0	11
3.13	Y	26	0	4	2	1	1	3	8
3.55		27	0	2	1	8	0	0	11
2.73		28	1	4	3	3	0	0	11
2.36		29	3	3	3	2	0	0	11
2.33	Y	30	0	3	0	3	3	2	9
2.73		31	2	4	1	3	1	0	11
3.09		32	1	3	2	4	1	0	11
3.64		33	1	1	1	6	2	0	11
1.91	Y	34	0	0	2	6	3	0	11
2.82		35	0	6	2	2	1	0	11
3.36		36	0	3	2	5	1	0	11
2.30	Y	37	0	0	4	5	1	0	10
3.09	Y	38	1	4	2	3	1	0	11
3.09	Y	39	0	6	2	1	2	0	11
2.55	Y	40	0	3	3	2	3	0	11
2.73		41	2	3	2	4	0	0	11
3.64	Y	42	1	7	2	0	1	0	11
2.91	Y	43	0	5	1	4	1	0	11
3.45		44	0	2	3	5	1	0	11

HEC G - HPD Classified Personnel: Total Response Distribution

Item Mean / Reverse Item Mean	Reversed	Item Number	Strongly Disagree [1]	Disagree [2]	Neutral [3]	Agree [4]	Strongly Agree [5]	Don't Know [6]	Total Responses [1 to 5]
3.27	Y	45	1	6	1	1	2	0	11
2.82		46	1	4	2	4	0	0	11
3.55		47	0	2	2	6	1	0	11
2.82	Y	48	1	3	1	5	1	0	11
3.27		49	0	4	2	3	2	0	11
2.73		50	2	3	3	2	1	0	11
4.00		51	1	0	1	5	4	0	11
4.36		52	0	0	0	7	4	0	11
3.55		53	1	2	1	4	3	1	11
3.27	Y	54	2	4	1	3	1	0	11
3.18		55	1	1	5	3	1	0	11
3.27		56	1	2	2	5	1	0	11
3.09	Y	57	1	4	1	5	0	0	11
3.27		58	0	5	0	4	2	0	11
3.00	Y	59	1	3	4	1	2	0	11
3.70		60	0	2	2	3	3	1	10
3.71		61	0	1	1	4	1	3	7
3.57		62	0	1	2	3	1	3	7
3.67		63	1	0	1	6	1	1	9
3.56	Y	64	2	4	1	1	1	1	9
4.10		65	0	0	1	7	2	0	10
3.60		66	1	1	1	5	2	0	10
4.20		67	0	0	1	2	2	5	5
3.11		68	2	0	4	1	2	1	9
4.00	Y	69	2	4	2	0	0	2	8
3.50		70	0	2	1	4	1	1	8

**Total Response Distribution**  
*(distribution is reversed for the Reverse Mean Items)*

[1]	[2]	[3]	[4]	[5]	[6]	TOTAL [1 to 5]
107	164	128	253	75	32	727

Overall Mean: **3.03**

HEC H - HFD Classified Personnel: Total Response Distribution

Item Mean /Reverse Item Mean	Reversed	Item Number	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Don't Know (6)	Total Responses (1 to 5)
3.86		1	0	1	0	5	1	0	7
4.00	Y	2	2	3	2	0	0	0	7
4.57		3	0	0	0	3	4	0	7
2.29		4	3	2	0	1	1	0	7
3.50	Y	5	0	4	1	1	0	1	6
2.80		6	1	2	0	1	1	2	5
3.17	Y	7	1	2	1	1	1	1	6
3.29	Y	8	2	1	1	3	0	0	7
4.57		9	0	0	1	1	5	0	7
2.00		10	1	5	1	0	0	0	7
2.86	Y	11	2	0	1	3	1	0	7
3.29		12	0	3	1	1	2	0	7
3.43		13	0	2	1	3	1	0	7
3.29		14	0	3	0	3	1	0	7
3.43	Y	15	2	2	1	1	1	0	7
4.29	Y	16	2	5	0	0	0	0	7
3.60	Y	17	1	3	0	0	1	2	5
4.14	Y	18	4	2	0	0	1	0	7
4.00		19	0	1	0	2	2	2	5
4.29		20	0	0	0	5	2	0	7
3.86		21	0	0	1	6	0	0	7
3.86		22	0	1	1	3	2	0	7
3.71	Y	23	2	3	1	0	1	0	7
2.86		24	0	2	4	1	0	0	7
3.29		25	1	0	3	2	1	0	7
3.83	Y	26	2	2	1	1	0	1	6
4.71		27	0	0	0	2	5	0	7
4.00		28	1	0	1	1	4	0	7
3.29		29	0	2	2	2	1	0	7
3.43	Y	30	2	1	2	2	0	0	7
3.43		31	0	2	2	1	2	0	7
2.57		32	1	3	1	2	0	0	7
3.14		33	1	1	1	4	0	0	7
2.71	Y	34	1	2	0	2	2	0	7
2.57		35	2	2	0	3	0	0	7
4.43		36	0	0	0	4	3	0	7
2.86	Y	37	0	2	2	3	0	0	7
3.71	Y	38	2	3	1	0	1	0	7
3.67	Y	39	1	3	1	1	0	0	6
3.14	Y	40	1	2	2	1	1	0	7
3.57		41	0	1	2	3	1	0	7
4.29	Y	42	4	2	0	1	0	0	7
3.29	Y	43	1	3	1	1	1	0	7
4.43		44	0	0	1	2	4	0	7

HEC H - HFD Classified Personnel: Total Response Distribution

Item Mean /Reverse Item Mean	Reversed	Item Number	Strongly Disagree [1]	Disagree [2]	Neutral [3]	Agree [4]	Strongly Agree [5]	Don't Know [6]	Total Responses [1 to 5]
3.83	Y	45	3	1	1	0	1	1	6
3.57		46	1	0	1	4	1	0	7
3.71		47	1	0	0	5	1	0	7
3.86	Y	48	1	5	0	1	0	0	7
3.00		49	2	0	1	4	0	0	7
2.50		50	1	2	2	1	0	0	6
4.14		51	0	1	0	3	3	0	7
4.71		52	0	0	0	2	5	0	7
4.00		53	1	0	0	3	3	0	7
3.43	Y	54	1	3	1	2	0	0	7
3.14		55	0	2	2	3	0	0	7
3.29		56	0	2	1	4	0	0	7
2.86	Y	57	0	4	0	1	2	0	7
3.86		58	0	1	0	5	1	0	7
2.50	Y	59	0	2	1	1	2	1	6
3.33		60	0	2	1	2	1	0	6
3.33		61	0	1	2	3	0	1	6
3.33		62	0	0	4	2	0	1	6
3.17		63	0	3	0	2	1	1	6
3.60	Y	64	1	2	1	1	0	2	5
3.71		65	0	1	1	4	1	0	7
4.00		66	0	0	1	3	1	2	5
2.75		67	1	0	2	1	0	3	4
3.50		68	0	1	1	4	0	1	6
4.20	Y	69	1	4	0	0	0	2	5
3.80		70	0	0	1	4	0	1	5

**Total Response Distribution**  
*(distribution is reversed for the Reverse Mean Items)*

[1]	[2]	[3]	[4]	[5]	[6]	TOTAL [1 to 5]
34	76	65	186	100	25	461

Overall Mean: **3.52**

HEC I - HEC IT: Total Response Distribution

Item Mean /Reverse Item Mean	Reversed	Item Number	Strongly Disagree [1]	Disagree [2]	Neutral [3]	Agree [4]	Strongly Agree [5]	Don't Know [6]	Total Responses [1 to 5]
3.93		1	0	3	0	6	5	0	14
3.50	Y	2	2	8	1	1	2	0	14
3.43		3	1	4	2	2	5	0	14
2.79		4	2	6	1	3	2	0	14
2.31	Y	5	0	3	2	4	4	1	13
2.14		6	4	5	4	1	0	0	14
2.00	Y	7	0	2	2	4	6	0	14
2.36	Y	8	2	2	2	1	7	0	14
3.36		9	2	2	2	5	3	0	14
2.21		10	5	4	2	3	0	0	14
2.86	Y	11	3	2	3	2	4	0	14
2.62		12	1	4	7	1	0	1	13
3.36		13	2	1	3	6	2	0	14
2.85		14	0	6	3	4	0	1	13
2.92	Y	15	1	3	3	4	1	2	12
2.71	Y	16	2	3	2	3	4	0	14
3.63	Y	17	2	3	2	0	1	6	8
2.77	Y	18	2	3	1	4	3	1	13
2.67		19	3	2	3	4	0	2	12
2.43		20	3	6	1	4	0	0	14
2.86		21	1	5	3	5	0	0	14
3.00		22	2	3	2	7	0	0	14
2.50	Y	23	0	2	4	7	1	0	14
3.21		24	0	4	3	7	0	0	14
3.64		25	0	0	6	7	1	0	14
3.17	Y	26	1	3	5	3	0	1	12
4.14		27	0	0	3	6	5	0	14
2.93		28	1	5	3	4	1	0	14
2.15		29	3	6	3	1	0	1	13
3.00	Y	30	1	3	4	3	1	2	12
2.57		31	2	5	4	3	0	0	14
3.00		32	0	5	4	5	0	0	14
2.86		33	3	3	1	7	0	0	14
2.29	Y	34	0	3	2	5	4	0	14
3.07		35	2	4	1	5	2	0	14
4.21		36	0	1	1	6	6	0	14
2.43	Y	37	0	1	6	5	2	0	14
2.71	Y	38	1	5	2	1	5	0	14
3.33	Y	39	2	4	3	2	1	2	12
2.14	Y	40	1	1	2	5	5	0	14
2.79		41	1	7	0	6	0	0	14
3.00	Y	42	1	5	2	5	1	0	14
2.50	Y	43	0	5	2	2	5	0	14
4.29		44	0	0	1	8	5	0	14

HEC I - HEC IT: Total Response Distribution

Item Mean /Reverse Item Mean	Reversed	Item Number	Strongly Disagree [1]	Disagree [2]	Neutral [3]	Agree [4]	Strongly Agree [5]	Don't Know [6]	Total Responses [1 to 5]
2.64	Y	45	1	4	2	3	4	0	14
2.71		46	0	7	4	3	0	0	14
2.93		47	2	4	1	7	0	0	14
2.71	Y	48	2	4	0	4	4	0	14
2.86		49	2	4	2	6	0	0	14
2.42		50	4	3	1	4	0	0	12
2.93		51	3	2	3	5	1	0	14
3.50		52	1	1	1	6	1	4	10
3.42		53	1	4	0	3	4	2	12
2.86	Y	54	0	5	3	5	1	0	14
3.07		55	0	5	3	6	0	0	14
3.23		56	0	4	3	5	1	1	13
2.79	Y	57	1	5	1	4	3	0	14
3.00		58	1	3	4	5	0	1	13
3.21	Y	59	2	6	1	3	2	0	14
2.57		60	6	1	0	7	0	0	14
3.00		61	0	2	2	2	0	8	6
2.50		62	1	2	2	1	0	8	6
4.08		63	1	0	0	7	4	2	12
3.33	Y	64	1	4	2	1	1	5	9
3.86		65	0	1	2	9	2	0	14
3.79		66	0	2	1	9	2	0	14
3.25		67	0	2	3	2	1	6	8
3.45		68	0	2	2	7	0	3	11
4.14	Y	69	3	3	0	1	0	7	7
3.75		70	0	0	2	6	0	6	8

**Total Response Distribution**  
*(distribution is reversed for the Reverse Mean Items)*

[1]	[2]	[3]	[4]	[5]	[6]	TOTAL [1 to 5]
132	222	158	308	84	73	904

Overall Mean: 2.99

HEC J - HEC Admin: Total Response Distribution

Item Mean /Reverse Item Mean	Reversed	Item Number	Strongly Disagree [1]	Disagree [2]	Neutral [3]	Agree [4]	Strongly Agree [5]	Don't Know [6]	Total Responses [1 to 5]
4.50		1	0	0	0	4	4	0	8
4.25	Y	2	3	4	1	0	0	0	8
4.63		3	0	0	0	3	5	0	8
4.00		4	0	1	0	4	2	1	7
3.67	Y	5	1	3	1	1	0	1	6
2.43		6	1	4	0	2	0	0	7
2.00	Y	7	0	0	2	2	2	2	6
3.50	Y	8	2	3	0	3	0	0	8
4.13		9	1	0	0	3	4	0	8
3.57		10	0	2	1	2	2	1	7
3.38	Y	11	1	5	0	0	2	0	8
4.29		12	0	0	2	1	4	1	7
2.88		13	1	2	2	3	0	0	8
4.25		14	0	1	1	1	5	0	8
3.50	Y	15	3	2	1	0	2	0	8
3.71	Y	16	2	3	1	0	1	1	7
4.57	Y	17	5	1	1	0	0	1	7
4.50	Y	18	4	4	0	0	0	0	8
4.38		19	0	1	0	2	5	0	8
4.13		20	0	1	0	4	3	0	8
4.25		21	0	1	0	3	4	0	8
3.38		22	0	2	1	5	0	0	8
4.00	Y	23	3	4	0	0	1	0	8
4.38		24	0	0	0	5	3	0	8
4.00		25	0	1	0	4	2	1	7
4.00	Y	26	4	2	1	0	1	0	8
4.50		27	0	0	0	4	4	0	8
4.25		28	0	0	1	4	3	0	8
4.00		29	0	0	2	3	2	0	7
4.00	Y	30	3	3	1	1	0	0	8
4.25		31	0	1	0	3	4	0	8
4.43		32	0	0	0	4	3	0	7
4.13		33	0	0	2	3	3	0	8
3.75	Y	34	2	4	1	0	1	0	8
4.25		35	0	0	0	6	2	0	8
4.75		36	0	0	0	2	6	0	8
3.38	Y	37	2	3	1	0	2	0	8
3.63	Y	38	0	7	0	0	1	0	8
3.88	Y	39	4	2	0	1	1	0	8
4.25	Y	40	4	3	0	1	0	0	8
3.86		41	0	2	0	2	3	0	7
4.25	Y	42	2	6	0	0	0	0	8
3.38	Y	43	1	4	1	1	1	0	8
4.75		44	0	0	0	2	6	0	8

HEC J - HEC Admin: Total Response Distribution

Item Mean /Reverse Item Mean	Reversed	Item Number	Strongly Disagree [1]	Disagree [2]	Neutral [3]	Agree [4]	Strongly Agree [5]	Don't Know [6]	Total Responses [1 to 5]
4.00	Y	45	4	2	1	0	1	0	8
3.67		46	0	0	2	4	0	2	6
4.00		47	0	1	0	5	2	0	8
4.38	Y	48	3	5	0	0	0	0	8
4.38		49	0	0	0	5	3	0	8
4.29		50	0	0	0	5	2	0	7
3.86		51	1	0	1	2	3	0	7
4.38		52	0	0	1	3	4	0	8
4.38		53	0	0	1	3	4	0	8
2.86	Y	54	0	4	0	1	2	0	7
3.75		55	0	2	0	4	2	0	8
4.29		56	0	0	0	5	2	1	7
3.75	Y	57	2	4	1	0	1	0	8
4.25		58	0	0	0	6	2	0	8
3.71	Y	59	1	3	3	0	0	1	7
4.50		60	0	0	0	4	4	0	8
4.29		61	0	0	1	3	3	1	7
4.13		62	1	0	0	3	4	0	8
4.38		63	0	0	1	3	4	0	8
3.43	Y	64	0	4	2	1	0	1	7
4.13		65	0	0	1	5	2	0	8
4.29		66	0	0	1	3	3	1	7
4.50		67	0	0	1	1	4	2	6
4.13		68	0	0	2	3	3	0	8
4.14	Y	69	2	4	1	0	0	1	7
4.13		70	0	0	1	5	2	0	8

**Total Response Distribution**  
*(distribution is reversed for the Reverse Mean Items)*

[1]	[2]	[3]	[4]	[5]	[6]	TOTAL [1 to 5]
24	34	45	240	190	19	533

Overall Mean: **4.01**

Observed Panel and Overall Means for Divisions and Aggregate Sample

Panel	Division										Aggregate
	Div-1	Div-2	Div-3	Div-4	Div-5	Div-6	Div-7	Div-8	Div-9	Div-10	
Number of surveys received	n = 13	n = 43	n = 30	n = 28	n = 21	n = 13	n = 12	n = 7	n = 14	n = 8	n = 189
Return Rate	35%	49%	43%	37%	62%	65%	50%	70%	67%	44%	48%
Personal Job Satisfaction	2.15	2.08	2.18	2.95	2.42	2.21	2.46	3.42	2.81	3.73	2.47
Compliance with Laws and Regulations	2.45	1.71	1.91	2.72	1.95	2.56	3.08	3.65	2.85	3.95	2.37
Quality of Care/Service	2.57	2.20	2.10	3.21	2.89	2.73	2.71	3.68	3.07	4.08	2.71
Employee Communication	2.51	2.17	2.29	2.89	2.42	2.27	2.86	3.22	2.86	4.06	2.57
Management Practices	2.08	1.99	2.23	2.85	2.32	2.50	3.12	3.62	2.89	4.11	2.52
Human Resources Practices	2.53	2.28	2.52	3.05	2.63	2.68	3.47	3.54	3.04	3.99	2.77
Financial Management	2.70	2.89	3.01	3.08	2.74	2.85	3.68	3.55	3.60	4.15	3.11
<b>Overall Mean</b>	<b>2.41</b>	<b>2.15</b>	<b>2.29</b>	<b>2.96</b>	<b>2.47</b>	<b>2.53</b>	<b>3.03</b>	<b>3.52</b>	<b>2.99</b>	<b>4.01</b>	<b>2.63</b>

where

- Div-1= HEC A - 911 Telecommunicators
- Div-2= HEC B - Police Telecommunicators
- Div-3= HEC C - Police Dispatchers
- Div-4= HEC D - HFD Dispatchers
- Div-5= HEC E - Fire/EMS Telecommunicators
- Div-6= HEC F - 911/Police/Fire/EMS Supervisors
- Div-7= HEC G - HPD Classified Personnel
- Div-8= HEC H - HFD Classified Personnel
- Div-9= HEC I - HEC IT
- Div-10= HEC J - HEC Admin



**Houston Emergency Center  
Call Processing Shift Schedules**

HEC 9-1-1	
Day	5:30 a.m. - 2:00 p.m.*
Day swing	10:00 a.m. - 6:30 p.m.*
Evening	1:30 p.m. - 10:00 p.m.*
Night swing	6:00 p.m. - 2:30 a.m.*
Night	9:30 p.m. - 6:00 a.m.*
* includes 30 minute roll call	

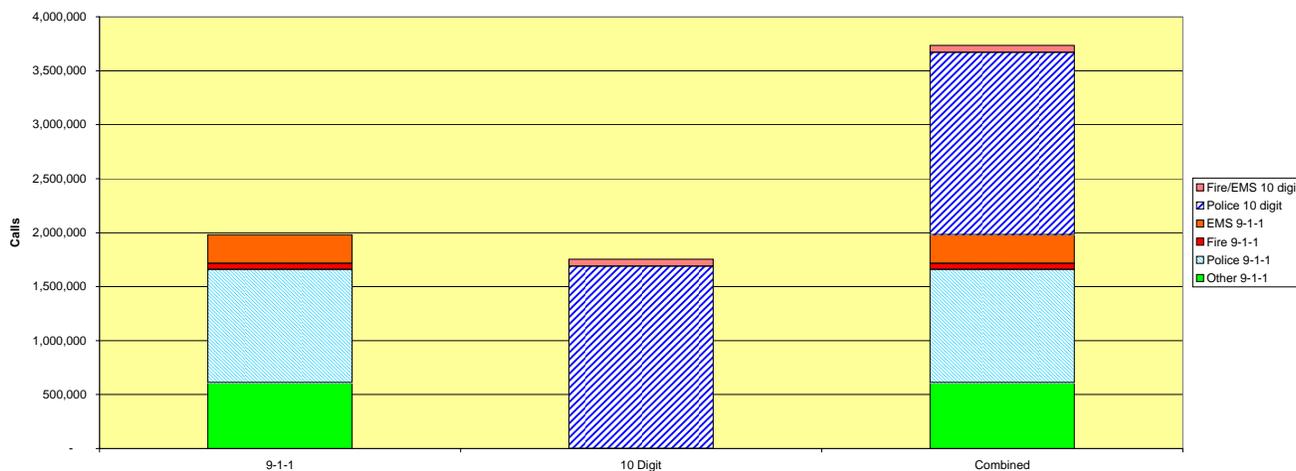
HFD	
Day	6:00 a.m. - 7:20 p.m.
Night	6:00 p.m. - 7:20 a.m.

HPD	
Day	5:30 a.m. - 2:00 p.m.*
Evening	1:30 p.m. - 10:00 p.m.*
Night	9:30 p.m. - 6:00 a.m.*
* includes 30 minute roll call	



Houston Emergency Center  
Constituents of Total 2004 Call Volumes

Constituents of Total 2004 Houston Emergency Center Call Volumes



2004 9-1-1 Call Volume						Average per Month
	9-1-1	%	10 Digit	Combined	%	
Fire/EMS 10 digit	-	-	62,350	62,350	2%	5,196
Police 10 digit	-	-	1,690,066	1,690,066	45%	140,839
EMS 9-1-1	266,171	13%	-	266,171	7%	22,181
Fire 9-1-1	56,199	3%	-	56,199	2%	4,683
Police 9-1-1	1,048,632	53%	-	1,048,632	28%	87,386
Other 9-1-1	609,872	31%	-	609,872	16%	50,823
<b>Total number of calls</b>	<b>1,980,874</b>	<b>100%</b>	<b>1,752,416</b>	<b>3,733,290</b>	<b>100%</b>	<b>311,108</b>

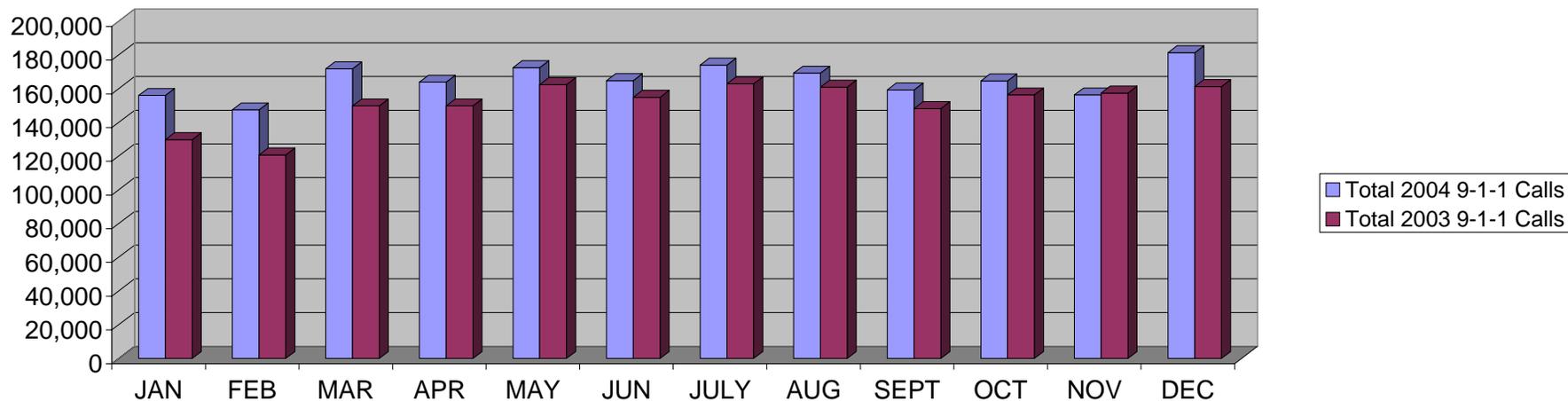
# Houston Emergency Center

## 2004 9-1-1 Call Volume

	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC	Totals	Avg. Per Month
Police 9-1-1	80,003	75,245	89,783	86,223	92,548	85,551	94,450	89,047	86,532	91,127	81,698	96,425	1,048,632	87,386
Fire 9-1-1	4,981	4,120	4,591	4,472	4,492	4,445	4,932	5,237	4,893	4,311	4,283	5,442	56,199	4,683
EMS 9-1-1	20,694	20,227	22,227	22,132	22,318	21,633	22,369	22,724	21,813	22,902	21,738	25,394	266,171	22,181
Other 9-1-1 Calls	50,258	47,836	55,169	50,971	53,129	53,109	52,256	52,177	46,028	46,210	48,603	54,126	609,872	50,823
<b>Total 2004 9-1-1 Calls</b>	<b>155,936</b>	<b>147,428</b>	<b>171,770</b>	<b>163,798</b>	<b>172,487</b>	<b>164,738</b>	<b>174,007</b>	<b>169,185</b>	<b>159,266</b>	<b>164,550</b>	<b>156,322</b>	<b>181,387</b>	<b>1,980,874</b>	<b>165,073</b>
<b>Total 2003 9-1-1 Calls</b>	<b>129,736</b>	<b>120,723</b>	<b>149,731</b>	<b>149,742</b>	<b>162,374</b>	<b>154,873</b>	<b>162,856</b>	<b>160,882</b>	<b>148,173</b>	<b>156,328</b>	<b>157,349</b>	<b>161,240</b>	<b>1,814,007</b>	<b>151,167</b>
<b>%Increase/Decrease</b>	<b>16.80%</b>	<b>18.11%</b>	<b>12.83%</b>	<b>8.58%</b>	<b>5.86%</b>	<b>5.99%</b>	<b>6.41%</b>	<b>4.91%</b>	<b>6.97%</b>	<b>5.00%</b>	<b>-0.66%</b>	<b>11.11%</b>	<b>9.20%</b>	

9-1-1 Daily Avg.	5,030	5,265	5,541	5,460	5,564	5,491	5,613	5,458	5,309	5,308	5,043	5,851
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### Total 9-1-1 Call Volume Comparison 2004 vs 2003



# Houston Emergency Center

HOUSTON EMERGENCY CENTER TOTAL CALL VOLUME  
Comparison 2004 vs. 2003

Appendix D-3

Estimated for four days due to Symposium down.

Estimated for two days due to Symposium down. Estimated for seven days due to Symposium down.

Total 9-1-1	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC	YTD 9-1-1	Avg. MONTH
2004	155,936	147,428	171,770	163,798	172,487	164,738	174,007	169,185	159,266	164,550	156,322	181,387	1,980,874	165,073
2003	129,736	120,723	149,731	149,742	162,374	154,873	162,856	160,882	148,173	156,328	157,349	161,240	1,814,007	151,167
PERCENTAGE	16.80%	18.11%	12.83%	8.58%	5.86%	5.99%	6.41%	4.91%	6.97%	5.00%	-0.66%	11.11%	9.20%	

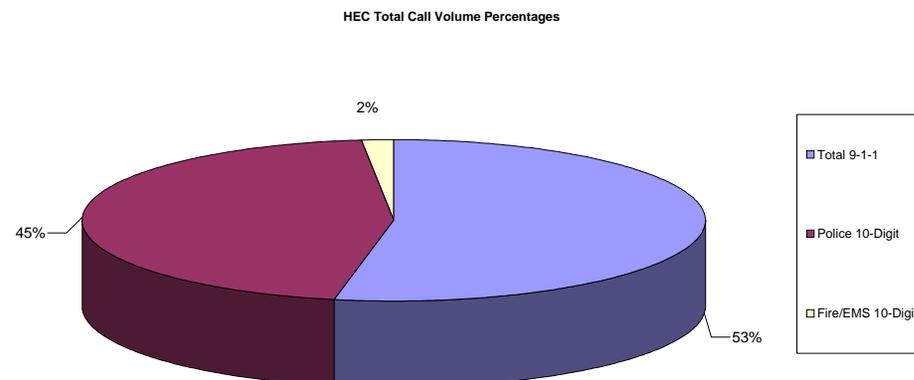
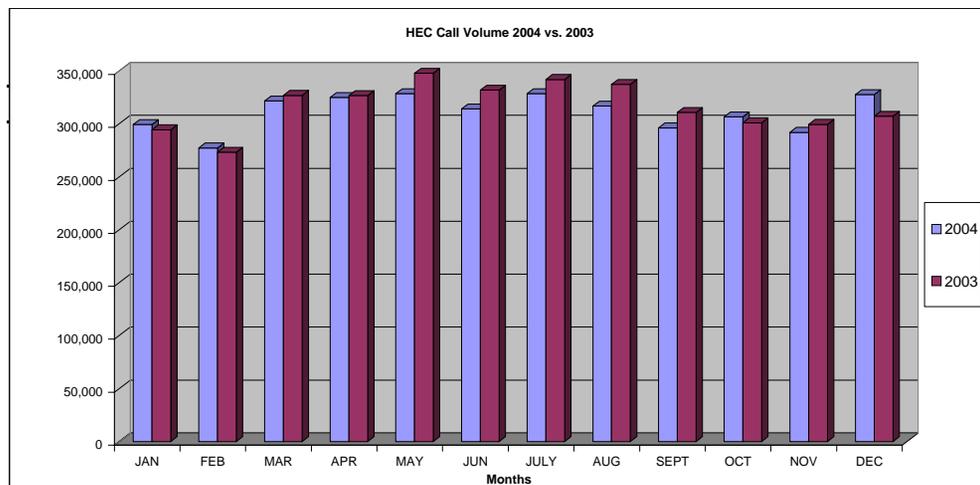
	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC	TOTALS	Avg. MONTH
Police 9-1-1	80,003	75,245	89,783	86,223	92,548	85,551	94,450	89,047	86,532	91,127	81,698	96,425	1,048,632	87,386
Fire 9-1-1	4,981	4,120	4,591	4,472	4,492	4,445	4,932	5,237	4,893	4,311	4,283	5,442	56,199	4,683
EMS 9-1-1	20,694	20,227	22,227	22,132	22,318	21,633	22,369	22,724	21,813	22,902	21,738	25,394	266,171	22,181
Other 9-1-1 Calls	50,258	47,836	55,169	50,971	53,129	53,109	52,256	52,177	46,028	46,210	48,603	54,126	609,872	50,823
Total	155,936	147,428	171,770	163,798	172,487	164,738	174,007	169,185	159,266	164,550	156,322	181,387	1,980,874	

Police 10-Digit	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC	YTD POLICE 10-DIGIT	Avg. MONTH
2004	138,229	125,276	144,509	155,962	150,520	143,612	149,047	142,176	132,427	137,151	130,433	140,724	1,690,066	140,839
2003	155,234	144,061	167,201	167,535	174,564	166,697	168,620	165,640	153,839	138,858	136,490	140,717	1,879,456	156,621
PERCENTAGE	-10.95%	-13.04%	-13.57%	-6.91%	-13.77%	-13.85%	-11.61%	-14.17%	-13.92%	-1.23%	-4.44%	0.00%	-10.08%	

Fire/EMS 10-Digit	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC	YTD FIRE/EMS 10-DIGIT	Avg. MONTH
2004	5,116	4,556	5,375	5,221	5,508	5,667	5,377	5,497	4,483	4,918	5,229	5,403	62,350	5,196
2003	9,410	8,299	9,932	9,504	10,758	10,233	10,444	10,790	8,719	5,844	5,629	5,321	104,883	8,740
PERCENTAGE	-45.63%	-45.10%	-45.88%	-45.07%	-48.80%	-44.62%	-48.52%	-49.05%	-48.58%	-15.85%	-7.11%	1.54%	-40.55%	

## HEC Call Volume Comparison 2004 vs. 2003

Total Call Volume	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC	TOTALS	Avg. Month
2004	299,281	277,260	321,654	324,981	328,515	314,017	328,431	316,858	296,176	306,619	291,984	327,514	3,733,290	311,108
2003	294,380	273,083	326,864	326,781	347,696	331,803	341,920	337,312	310,731	301,030	299,468	307,278	3,798,346	316,529
PERCENTAGE	1.66%	1.53%	-1.59%	-0.55%	-5.52%	-5.36%	-3.95%	-6.06%	-4.68%	1.86%	-2.50%	6.59%	-1.71%	
														Avg. Day 10,036

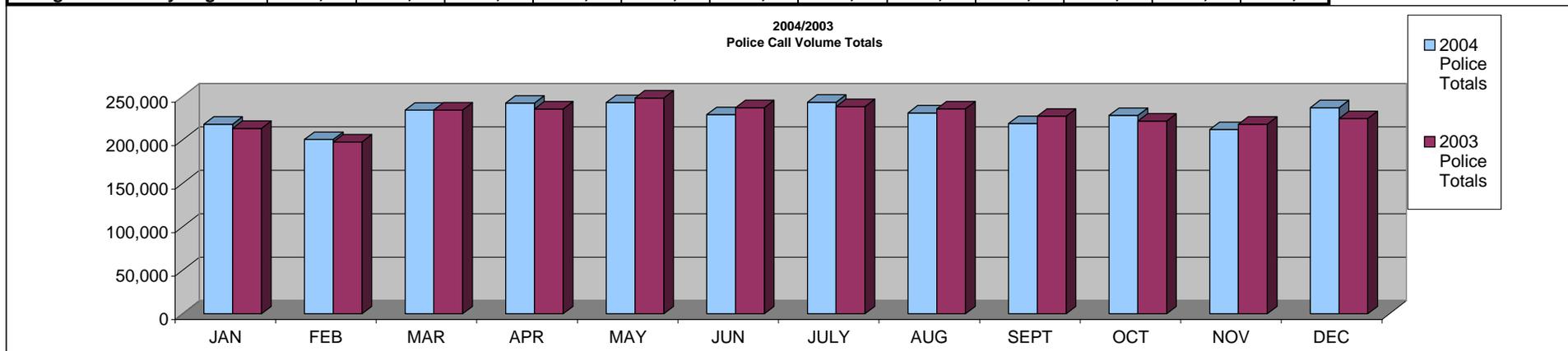


# Houston Emergency Center

2004/2003 Police Call Volume

	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC	Total Year	Avg. Per Month
9-1-1 Police Calls	80,003	75,245	89,783	86,223	92,548	85,551	94,450	89,047	86,532	91,127	81,698	96,425	1,048,632	87,386
Police 10-Digit Calls	138,229	125,276	144,509	156,186	150,520	143,612	149,047	142,176	132,427	137,151	130,433	140,724	1,690,290	140,858
<b>2004 Police Totals</b>	<b>218,232</b>	<b>200,521</b>	<b>234,292</b>	<b>242,409</b>	<b>243,068</b>	<b>229,163</b>	<b>243,497</b>	<b>231,223</b>	<b>218,959</b>	<b>228,278</b>	<b>212,131</b>	<b>237,149</b>	<b>2,738,922</b>	<b>228,244</b>
<b>2003 Police Totals</b>	<b>213,381</b>	<b>197,706</b>	<b>234,435</b>	<b>235,670</b>	<b>248,289</b>	<b>237,163</b>	<b>238,368</b>	<b>235,827</b>	<b>227,394</b>	<b>221,815</b>	<b>218,272</b>	<b>224,764</b>	<b>2,733,084</b>	<b>227,757</b>
<b>% Increase/Decrease</b>	<b>2.22%</b>	<b>1.40%</b>	<b>-0.06%</b>	<b>2.78%</b>	<b>-2.15%</b>	<b>-3.49%</b>	<b>2.11%</b>	<b>-1.99%</b>	<b>-3.85%</b>	<b>2.83%</b>	<b>-2.89%</b>	<b>5.22%</b>	<b>0.21%</b>	

9-1-1 Police Daily Avg.	2,581	2,687	2,896	2,874	2,985	2,760	3,047	2,872	2,791	2,940	2,635	3,110
10-Digit Police Daily Avg.	4,459	4,474	4,662	5,206	4,855	4,787	4,808	4,586	4,414	4,424	4,208	4,539



Police 10-Digit Comparison	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC	Total Year	Avg. Per Month
2004 10-Digit	138,229	125,276	144,509	156,186	150,520	143,612	149,047	142,176	132,427	137,151	130,433	140,724	1,690,290	140,858
2003 10-Digit	155,234	144,061	167,201	167,535	174,564	166,697	168,620	165,640	153,839	138,858	136,490	140,717	1,879,456	156,621
<b>% Increase/Decrease</b>	<b>-12.30%</b>	<b>-14.99%</b>	<b>-15.70%</b>	<b>-7.27%</b>	<b>-15.97%</b>	<b>-16.07%</b>	<b>-13.13%</b>	<b>-16.50%</b>	<b>-16.17%</b>	<b>-1.24%</b>	<b>-4.64%</b>	<b>0.00%</b>	<b>-11.19%</b>	

Police 911 Comparison	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC	Total Year	Avg. Per Month
2004 911	80,003	75,245	89,783	86,223	92,548	85,551	94,450	89,047	86,532	91,127	81,698	96,425	1,048,632	87,386
2003 911	58,147	53,645	67,234	68,135	73,725	70,466	69,748	70,187	73,555	82,957	81,782	84,047	853,628	71,136
<b>% Increase/Decrease</b>	<b>27.32%</b>	<b>28.71%</b>	<b>25.11%</b>	<b>20.98%</b>	<b>20.34%</b>	<b>17.63%</b>	<b>26.15%</b>	<b>21.18%</b>	<b>15.00%</b>	<b>8.97%</b>	<b>-0.10%</b>	<b>12.84%</b>	<b>18.60%</b>	

# Houston Emergency Center

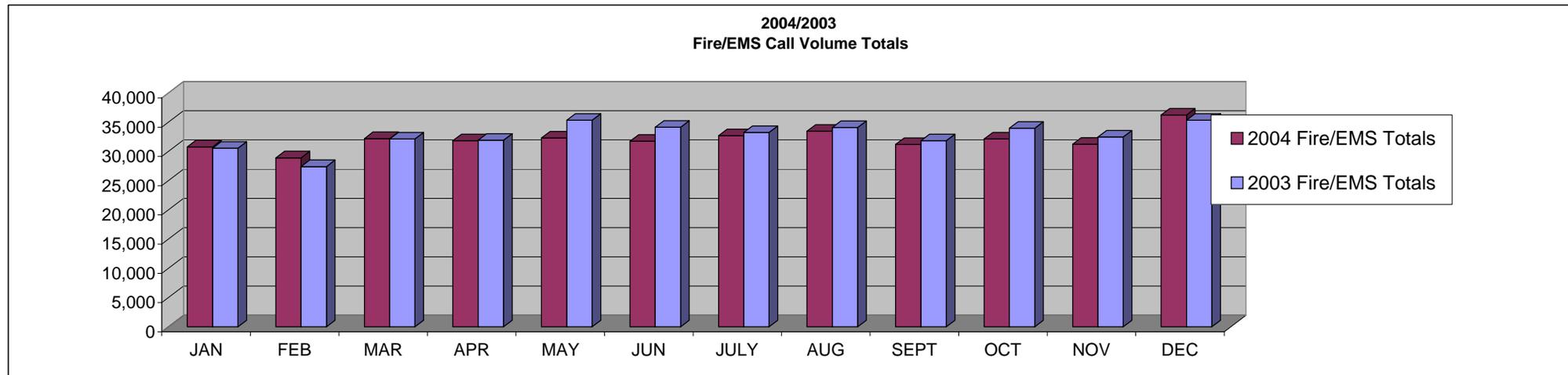
## 2004/2003 Fire/EMS Call Volume

	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC	Total Year
Fire 9-1-1 Calls	4,981	4,120	4,591	4,472	4,492	4,445	4,932	5,237	4,893	4,311	4,283	5,442	56,199
EMS 9-1-1 Calls	20,694	20,227	22,227	22,132	22,318	21,633	22,369	22,724	21,813	22,902	21,738	25,394	266,171
Fire/EMS 10-Digit Calls	5,116	4,556	5,375	5,221	5,508	5,667	5,377	5,497	4,483	4,918	5,229	5,403	62,350
<b>2004 Fire/EMS Totals</b>	<b>30,791</b>	<b>28,903</b>	<b>32,193</b>	<b>31,825</b>	<b>32,318</b>	<b>31,745</b>	<b>32,678</b>	<b>33,458</b>	<b>31,189</b>	<b>32,131</b>	<b>31,250</b>	<b>36,239</b>	<b>384,720</b>
<b>2003 Fire/EMS Totals</b>	<b>30,551</b>	<b>27,410</b>	<b>32,124</b>	<b>31,916</b>	<b>35,340</b>	<b>34,140</b>	<b>33,241</b>	<b>34,105</b>	<b>31,825</b>	<b>33,965</b>	<b>32,463</b>	<b>35,350</b>	<b>392,430</b>
<b>% Increase/Decrease</b>	<b>0.78%</b>	<b>5.17%</b>	<b>0.21%</b>	<b>-0.29%</b>	<b>-9.35%</b>	<b>-7.54%</b>	<b>-1.72%</b>	<b>-1.93%</b>	<b>-2.04%</b>	<b>-5.71%</b>	<b>-3.88%</b>	<b>2.45%</b>	<b>-2.00%</b>

Average Answer Delay													
Fire 911	0:00:03	0:00:03	0:00:03	0:00:05	0:00:04	0:00:03	0:00:04	0:00:03	0:00:03	0:00:02	0:00:02	0:00:03	0:00:03
EMS 911	0:00:02	0:00:02	0:00:02	0:00:03	0:00:03	0:00:02	0:00:02	0:00:02	0:00:02	0:00:01	0:00:02	0:00:02	0:00:02
Fire/EMS 10-Digit	0:00:02	0:00:03	0:00:02	0:00:05	0:00:04	0:00:03	0:00:02	0:00:02	0:00:02	0:00:02	0:00:02	0:00:02	0:00:03

EMS Calls Dispatched	16,924	16,295	17,880	17,601	18,357	17,921	18,421	18,560	18,119	18,418	17,216	17,858	213,570
Fire Calls Dispatched	4,221	3,638	4,072	4,015	4,089	4,196	4,064	4,325	3,719	3,944	3,899	4,148	48,330
<b>Total Calls Dispatched</b>	<b>21,145</b>	<b>19,933</b>	<b>21,952</b>	<b>21,616</b>	<b>22,446</b>	<b>22,117</b>	<b>22,485</b>	<b>22,885</b>	<b>21,838</b>	<b>22,362</b>	<b>21,115</b>	<b>22,006</b>	<b>261,900</b>

2004 Percentage Dispatched of Calls Received



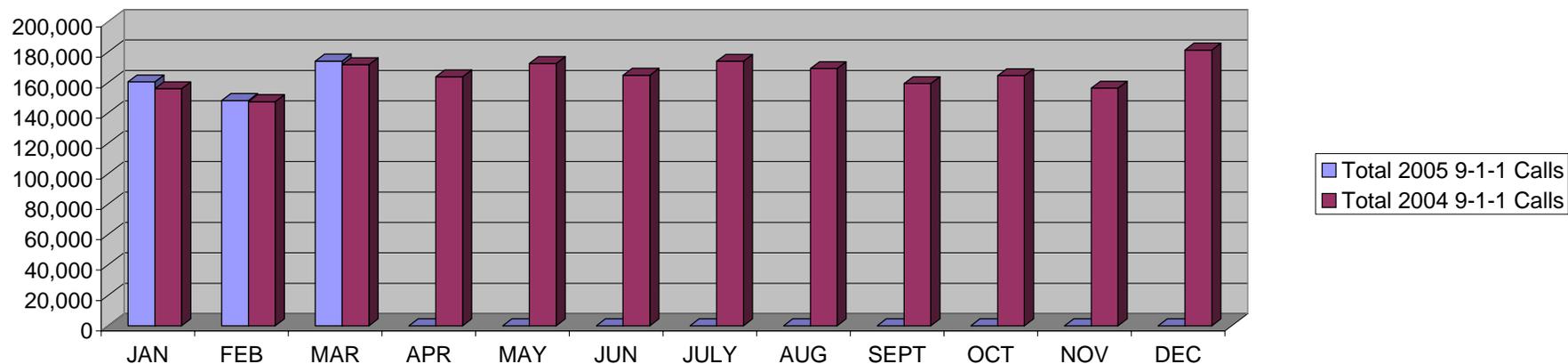
# Houston Emergency Center

## 2005 9-1-1 Call Volume

	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC	Totals	Avg. Per Month
Police 9-1-1	81,104	72,202	76,329										229,635	76,545
Fire 9-1-1	4,001	3,795	4,271										12,067	4,022
EMS 9-1-1	22,206	21,617	22,928										66,751	22,250
Other 9-1-1 Calls	53,108	50,538	70,620										174,266	58,089
<b>Total 2005 9-1-1 Calls</b>	<b>160,419</b>	<b>148,152</b>	<b>174,148</b>	<b>0</b>	<b>482,719</b>	<b>160,906</b>								
<b>Total 2004 9-1-1 Calls</b>	<b>155,936</b>	<b>147,428</b>	<b>171,770</b>	<b>163,798</b>	<b>172,487</b>	<b>164,738</b>	<b>174,007</b>	<b>169,185</b>	<b>159,266</b>	<b>164,550</b>	<b>156,322</b>	<b>181,387</b>	<b>1,980,874</b>	<b>165,073</b>
<b>% Increase/Decrease</b>	<b>2.79%</b>	<b>0.49%</b>	<b>1.37%</b>	<b>#DIV/0!</b>	<b>-75.63%</b>									

9-1-1 Daily Avg.	5,175	5,291	5,618	0	0	0	0	0	0	0	0	0
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Total 9-1-1 Call Volume Comparison 2005 vs 2004

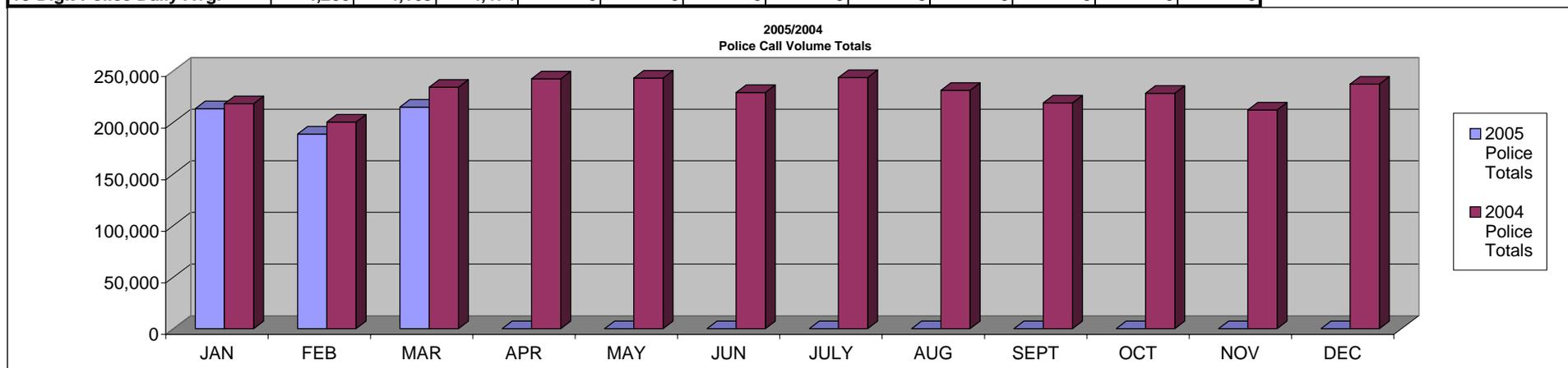


# Houston Emergency Center

2005/2004 Police Call Volume

	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC	Total Year	Avg. Per Month
9-1-1 Police Calls	81,104	72,202	76,329										229,635	76,545
Police 10-Digit Calls	132,241	116,631	138,692										387,564	129,188
<b>2005 Police Totals</b>	<b>213,345</b>	<b>188,833</b>	<b>215,021</b>	<b>0</b>	<b>617,199</b>	<b>205,733</b>								
<b>2004 Police Totals</b>	<b>218,232</b>	<b>200,521</b>	<b>234,292</b>	<b>242,409</b>	<b>243,068</b>	<b>229,163</b>	<b>243,497</b>	<b>231,223</b>	<b>218,959</b>	<b>228,278</b>	<b>212,131</b>	<b>237,149</b>	<b>2,738,922</b>	<b>228,244</b>
<b>% Increase/Decrease</b>	<b>-2.29%</b>	<b>-6.19%</b>	<b>-8.96%</b>	<b>#DIV/0!</b>	<b>-343.77%</b>									

9-1-1 Police Daily Avg.	2,616	2,579	2,462	0	0	0	0	0	0	0	0	0		
10-Digit Police Daily Avg.	4,266	4,165	4,474	0	0	0	0	0	0	0	0	0		



Police 10-Digit Comparison	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC	Total Year	Avg. Per Month
2005 10-Digit	132,241	116,631	138,692	0	0	0	0	0	0	0	0	0	387,564	129,188
2004 10-Digit	138,229	125,276	144,509	156,186	150,520	143,612	149,047	142,176	132,427	137,151	130,433	140,724	1,690,290	140,858
<b>% Increase/Decrease</b>	<b>-4.53%</b>	<b>-7.41%</b>	<b>-4.19%</b>	<b>#DIV/0!</b>	<b>-336.13%</b>									

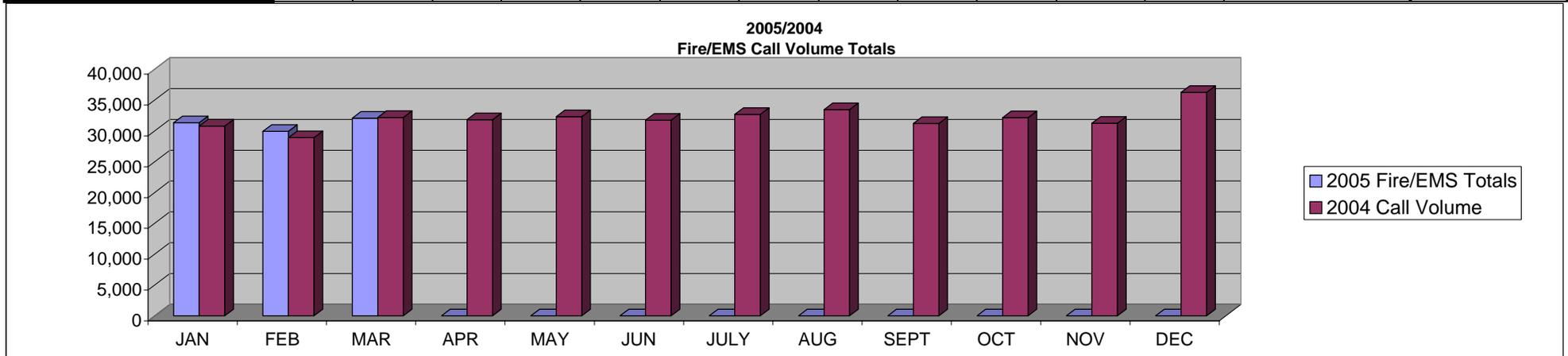
Police 911 Comparison	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC	Total Year	Avg. Per Month
2005 911	81,104	72,202	76,329	0	0	0	0	0	0	0	0	0	229,635	76,545
2004 911	80,003	75,245	89,783	86,223	92,548	85,551	94,450	89,047	86,532	91,127	81,698	96,425	1,048,632	87,386
<b>% Increase/Decrease</b>	<b>1.36%</b>	<b>-4.21%</b>	<b>-17.63%</b>	<b>#DIV/0!</b>	<b>-356.65%</b>									

# Houston Emergency Center

2005/2004 Fire/EMS Call Volume

	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC	Total Year	Avg. Per Month
Fire 9-1-1 Calls	4,001	3,795	4,271										12,067	4,022
EMS 9-1-1 Calls	22,206	21,617	22,928										66,751	22,250
Fire/EMS 10-Digit Calls	5,126	4,511	4,880										14,517	4,839
2005 Fire/EMS Totals	31,333	29,923	32,079	0	0	0	0	0	0	0	0	0	93,335	31,112
2004 Call Volume	30,791	28,903	32,193	31,825	32,318	31,745	32,678	33,458	31,189	32,131	31,250	36,239	384,720	32,060
% Increase/Decrease	1.73%	3.41%	-0.36%	#DIV/0!	-312.19%									

EMS Calls Dispatched	17,873	17,773											35,646	11,882
Fire Calls Dispatched	3,725	3,392											7,117	2,372
2005 Total Calls Dispatched	21,598	21,165	0	0	0	0	0	0	0	0	0	0	42,763	14,254



# Houston Emergency Center

2005/2004/2003 Police Related Call Volume

	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC	YTD Total	Avg. Per Month
9-1-1 Police Calls	81,104	72,202	76,329										229,635	76,545
Police 10-Digit Calls	132,241	116,631	138,692										387,564	129,188
2005 Total Police Calls	213,345	188,833	215,021	0	0	0	0	0	0	0	0	0	617,199	205,733
2004 Police Totals	218,232	200,521	234,292	242,409	243,068	229,163	243,497	231,223	218,959	228,278	212,131	237,149	2,738,922	228,244
2003 Police Totals	213,381	197,706	234,435	235,670	248,289	237,163	238,368	235,827	227,394	221,815	218,272	224,764	2,733,084	227,757

## Police Related Dispatch Information

	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC	Total Year	Avg. Per Month
2005 Calls Sent to Dispatch	168,058	152,849	172,592										493,499	164,500
2005 Calls Dispatched	144,350	128,601	143,983										416,934	138,978
Difference	23,708	24,248	28,609										76,565	25,522

	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC	Total Year	Avg. Per Month
2004 Calls Sent to Dispatch	168,714	155,204	173,351	169,502	175,072	164,174	167,573	163,035	158,956	168,407	161,413	164,481	1,989,882	165,824
2004 Calls Dispatched	141,571	129,373	142,921	139,992	146,498	137,093	139,936	136,555	134,470	143,081	136,774	139,736	1,668,000	139,000
Difference	27,143	25,831	30,430	29,510	28,574	27,081	27,637	26,480	24,486	25,326	24,639	24,745	321,882	26,824

# Houston Emergency Center

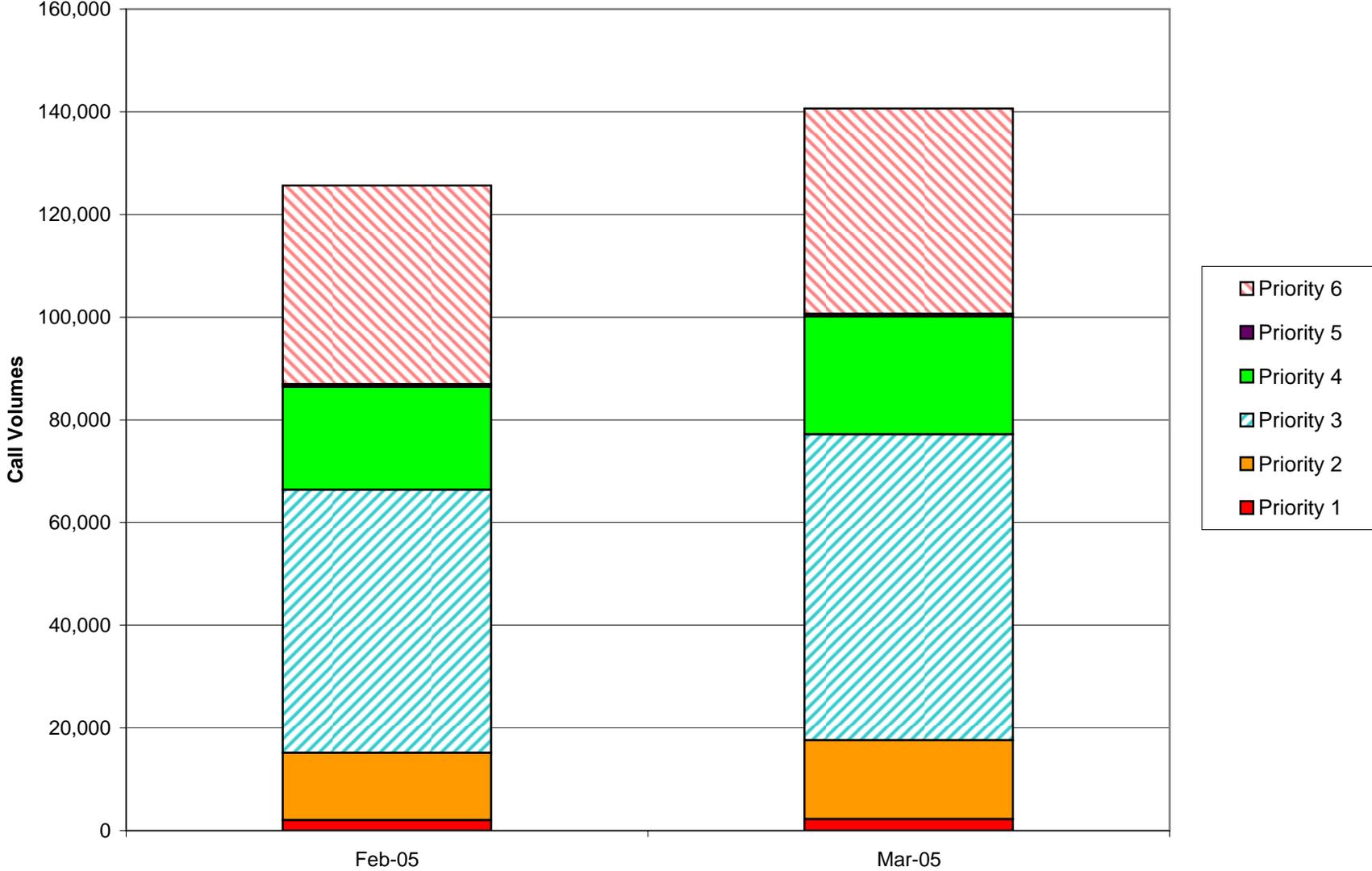
2005/2004/2003 Fire/EMS Call Volume

	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC	Total Year	Avg. Per Month
Fire 9-1-1 Calls	4,001	3,795	4,271										12,067	4,022
EMS 9-1-1 Calls	22,206	21,617	22,928										66,751	22,250
Fire/EMS 10-Digit Calls	5,126	4,511	4,880										14,517	4,839
<b>2005 Fire/EMS Totals</b>	<b>31,333</b>	<b>29,923</b>	<b>32,079</b>	<b>0</b>	<b>93,335</b>	<b>31,112</b>								
<b>2004 Call Volume</b>	<b>30,791</b>	<b>28,903</b>	<b>32,193</b>	<b>31,825</b>	<b>32,318</b>	<b>31,745</b>	<b>32,678</b>	<b>33,458</b>	<b>31,189</b>	<b>32,131</b>	<b>31,250</b>	<b>36,239</b>	<b>384,720</b>	<b>32,060</b>
<b>2003 Fire/EMS Totals</b>	<b>30,551</b>	<b>27,410</b>	<b>32,124</b>	<b>31,916</b>	<b>35,340</b>	<b>34,140</b>	<b>33,241</b>	<b>34,105</b>	<b>31,825</b>	<b>33,965</b>	<b>32,463</b>	<b>35,350</b>	<b>392,430</b>	<b>32,703</b>

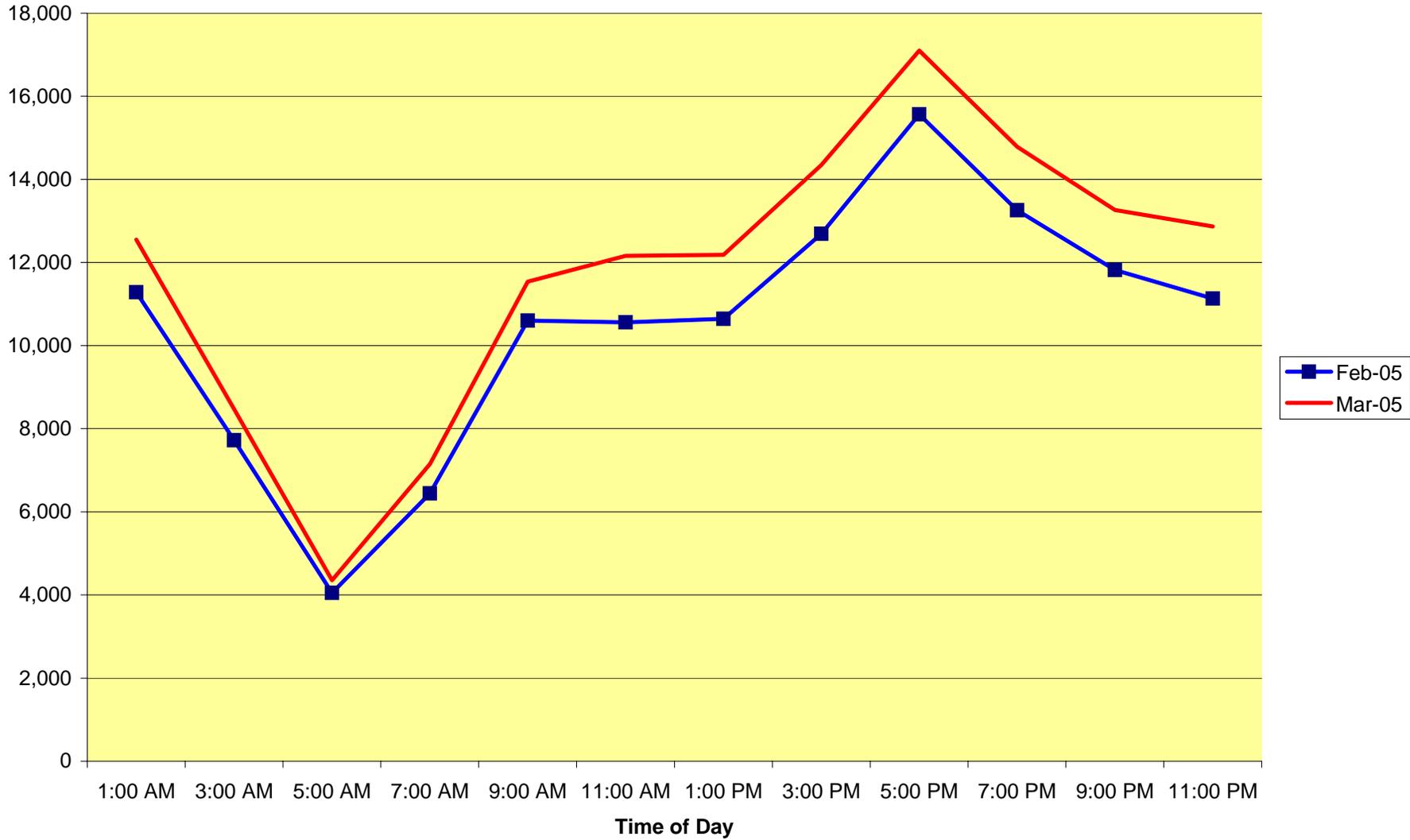
## Dispatched Information

2005	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC	Total Year	Avg. Per Month
Fire/EMS Sent to Dispatch	22,036	21,542	22,801										66,379	22,126
Fire/EMS Calls Dispatched	21,598	21,165	22,350										65,113	21,704
Difference	438	377	451										1,266	422
2004	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC	Total Year	Avg. Per Month
Fire/EMS Sent to Dispatch	22,382	21,073	23,371	23,135	24,051	23,418	23,830	24,556	23,258	22,849	21,570	22,487	275,980	22,998
Fire/EMS Calls Dispatched	21,145	19,933	21,952	21,616	22,446	22,117	22,485	22,885	21,838	22,362	21,115	22,006	261,900	21,825
Difference	1,237	1,140	1,419	1,519	1,605	1,301	1,345	1,671	1,420	487	455	481	14,080	1,173
2003	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC	Total Year	Avg. Per Month
Fire/EMS Sent to Dispatch										24,543	23,480	22,124	70,147	23,382
Fire/EMS Calls Dispatched										23,691	22,270	21,470	67,431	22,477
Difference										852	1,210	654	2,716	905

Police Dispatch Call Volumes - Distribution by Priority Code



Police Dispatch Call Volumes - Hourly Distribution



POLICE ANNUAL CALL COUNT LOG

YEAR: 2003

MONTH	9-1-1		ACD		Incoming Call Volume		Abandon Percent	Answer Index	ASA	DCP	PCP	DN IN	DN OUT	ABANDON			ANSWERED		
	9-1-1	10-Digit	9-1-1	10-Digit	Totals	Totals								BT	AT	BT	AT	BT	AT
JAN	58,147	155,234	213,381	213,381	2.76%	88.12%	6.067	73	83	5,883	22,345	2,824	1,457	188,338	23,998				
FEB	53,645	144,061	197,706	197,706	2.92%	86.92%	6.616	70	82	5,293	22,115	2,618	1,586	188,885	24,271				
MAR	67,234	167,201	234,435	234,435	3.91%	81.60%	9.716	73	80	5,765	22,866	3,888	2,650	186,978	40,475				
APR	68,135	167,535	235,670	235,670	4.68%	81.54%	9.617	72	79	5,781	24,097	4,176	3,668	187,159	39,846				
MAY	73,725	174,564	248,289	248,289	5.15%	77.98%	11.978	72	84	6,348	24,718	5,098	3,899	195,795	50,765				
JUN	70,466	166,697	237,163	237,163	4.98%	76.00%	11.999	73	83	6,456	24,995	4,743	3,557	175,501	53,962				
JUL	69,748	166,620	236,368	236,368	6.36%	74.50%	12.985	74	80	6,788	24,859	4,767	5,959	172,817	54,825				
AUG	70,187	165,460	235,647	235,647	6.41%	74.00%	13.582	73	78	6,588	25,100	4,713	5,891	169,666	55,377				
SEPT																			
OCT																			
NOV																			
DEC																			
<b>TOTALS</b>	<b>531,287</b>	<b>1,309,372</b>	<b>1,840,659</b>	<b>1,840,659</b>	<b>3%</b>	<b>79.82%</b>	<b>10.320</b>	<b>72</b>	<b>81</b>	<b>48,902</b>	<b>191,095</b>	<b>32,828</b>	<b>28,668</b>	<b>1,445,138</b>	<b>342,818</b>				

Total DCP and PCP time in seconds

153

Appendix D-14

FIRE/EMS ANNUAL CALL COUNT LOG

YEAR: 2003

MONTH	Incoming Call Volume				Answer Index	ABANDON				ANSWERED			
	9-1-1	ACD 10-Digit	Totals	Abandon Percent		ASA	DCP	PCP	DN IN	DN OUT	BT	AT	BT
JAN	21,141	9,410	30,551	0.62%	1,604	108	27	538	4,835	147	41	29,587	481
FEB	19,111	8,299	27,410	0.85%	1,594	100	23	413	4,485	173	60	26,710	493
MAR	22,192	9,932	32,124	0.98%	1,946	107	26	513	5,287	225	88	30,407	771
APR	22,412	9,504	31,916	0.98%	2,042	104	27	526	5,323	189	79	30,769	802
MAY	24,582	10,758	35,340	0.83%	2,054	106	28	467	5,725	196	94	33,360	937
JUN	23,907	10,233	34,140	1.99%	2,472	106	27	442	5,388	464	221	31,756	1,288
JUL	22,797	10,444	33,241	0.56%	1,836	109	27	402	5,390	94	92	31,891	693
AUG	23,315	10,790	34,105	0.55%	2,050	106	26	499	5,300	79	111	32,654	861
SEPT													
OCT													
NOV													
DEC													
<b>TOTALS</b>	<b>179,457</b>	<b>79,370</b>	<b>258,827</b>	<b>0.91%</b>	<b>1,950</b>	<b>106</b>	<b>27</b>	<b>3,800</b>	<b>41,733</b>	<b>1,567</b>	<b>786</b>	<b>247,134</b>	<b>6,326</b>

Average	9-1-1	10-Digit	Totals	Abandon Percent	Answer Index	ASA	DCP	PCP	DN IN	DN OUT	BT	AT	BT	AT
	22432	9921	32353	0.91%	97.25%	1,950	106	27	475	5217	196	98	30892	791

Total DCP and PCP time in seconds 133

Appendix D-15

Houston Emergency Center  
2004 Call Handling Times

Number of Seconds to Process Calls	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04
Other 9-1-1 DCP	19	19	20	20	21	20	20	21	21	21	20	20
Other 9-1-1 PCP	2	1	1	1	1	1	1	1	1	1	1	2
Police 9-1-1 DCP	88	87	85	84	87	86	87	89	89	87	84	86
Police 10-Digit DCP	83	84	85	80	84	82	83	85	84	83	81	80
Police 9-1-1 PCP	73	98	90	84	63	46	47	54	62	76	52	79
Police 10-Digit PCP	93	83	79	79	88	38	41	47	49	54	41	61
Fire 9-1-1 DCP	85	85	80	80	83	85	83	79	79	83	82	78
Fire 10 Digit DCP	81	78	77	76	79	77	74	78	76	75	72	74
Fire 9-1-1 PCP	34	40	28	28	27	30	34	31	30	27	26	28
Fire 10 Digit PCP	37	30	27	25	26	30	36	29	25	26	24	26
EMS 9-1-1 DCP	135	130	126	125	126	128	126	125	123	123	122	121
EMS 9-1-1 PCP	29	29	26	24	24	25	27	26	22	23	33	23

Average  
Function  
Time

2004 Total Handling Times (Seconds)

Other 9-1-1 DCP	20
Other 9-1-1 PCP	1
Total Time in seconds	<u>21</u>
Police 9-1-1 DCP	87
Police 9-1-1 PCP	69
Total Time in seconds	<u>155</u>
Fire 9-1-1 DCP	82
Fire 9-1-1 PCP	30
Total Time in seconds	<u>112</u>
EMS 9-1-1 DCP	126
EMS 9-1-1 PCP	26
Total Time in seconds	<u>152</u>
Fire 10 Digit DCP	76
Fire 10 Digit PCP	28
Total Time in seconds	<u>105</u>
Police 10-Digit DCP	83
Police 10-Digit PCP	63
Total Time in seconds	<u>146</u>

## Appendix D-16

### Houston Emergency Center 9-1-1 Relative Activity Levels by Call Type

	<b>Call Volumes *</b>	<b>% Calls</b>	<b>DCP+PCP Time (secs)**</b>	<b>Total Minutes</b>	<b>% Time</b>
Police	1,048,632	53%	155	2,708,966	73%
Fire	56,199	3%	112	104,905	3%
EMS	266,171	13%	152	674,300	18%
Other	609,872	31%	21	213,455	6%
<b>Total</b>	<b>1,980,874</b>	<b>100%</b>	<b>112</b>	<b>3,701,626</b>	<b>100%</b>
Fire/EMS Combined Average			145		

\* Source Appendix D-2

\*\* Source Appendix D-15

## Appendix D-17

### Houston EmergencyCenter Analysis of Potential Savings from SecondaryCoding of ST's to Handle Overflow PT Calls

	<u>Headcount</u>	<u>Amount</u>	<u>Total Costs</u>
Savings of 1 ST per Shift	1		
Shifts per day	3		
Industry factor to cover relief (vacation, etc)	1.7		
Headcount saved (rounded down)	5		
Base pay rate		\$ 15.00	
Burden rate of 30%		\$ 4.50	
Burdened hourlyrate		<u>\$ 19.50</u>	
Annual payroll expenses	<u>5</u>	<u>\$ 40,560</u>	<u>\$ 202,800</u>
Savings of 2 ST per Shift	2		
Shifts per day	3		
Industry factor to cover relief (vacation, etc)	1.7		
Headcount saved (rounded down)	10		
Base pay rate		\$ 15.00	
Burden rate of 30%		\$ 4.50	
Burdened hourlyrate		<u>\$ 19.50</u>	
Annual payroll expenses	<u>10</u>	<u>\$ 40,560</u>	<u>\$ 405,600</u>

**Houston Emergency Center**  
**Potential Savings from Automated Handling of 10 Digits Call via IVR**

	Police	Fire	Total
<b>Call Volumes (2004)</b>			
9-1-1	1,048,632	322,370	1,371,002
10 Digits	1,690,066	62,350	1,752,416
Combined	<u>2,738,698</u>	<u>384,720</u>	<u>3,123,418</u>
Calls Sent to Dispatch	1,989,882	275,980	
Assume Dispatch Rate on 9-1-1 of	<b>80%</b>	<b>80%</b>	
Estimated 9-1-1 to Dispatch	838,906	257,896	
Balance - Estimated 10 Digits to Dispatch	1,150,976	18,084	
<b>Estimated % of 10 Digits Sent to Dispatch</b>	<b>68%</b>	<b>29%</b>	
Total Calls Dispatched	1,668,000	261,900	
Total Priority Code 1, 2, and 3 Calls	907,022		
<b>Priority 1-3 Calls as % of Total Dispatched</b>	<b>54%</b>		

**Roster required to run 10 digits as stand alone function per govt tables#**

Days	27	3	30
Evenings	27	3	30
Nights	22	3	25
Total - Represents Maximum Headcount Savings	<u>76</u>	<u>9</u>	<u>85</u>

**Total Current Staffing Roster#**

Days			54
Evenings			58
Nights			53
Total			<u>165</u>

**Total Staffing Roster excluding 10 digit calls#**

Days			27
Evenings			32
Nights			31
Total			<u>90</u>

**Roster savings from 10 digit calls (allocated back over Police & Fire)**

Days	25	2	27
Evenings	24	2	26
Nights	20	2	22
Total - Estimated Actual Savings	<u>69</u>	<u>6</u>	<u>75</u>

**Calculation of Potential Associated Payroll Savings**

Telecommunicator Base Pay (unburdened)	\$ 36,500		
Total Savings - Base only	\$ 2,518,500	\$ 219,000	\$ 2,737,500
Total Savings - with Burden at 30%	\$ 3,274,050	\$ 284,700	\$ 3,558,750
Assumed transfer rate from IVR to 9-1-1*	37%	29%	
less: 10 Digits callers selecting 9-1-1 PT option	\$ (1,212,467)	\$ (82,563)	\$ (1,295,030)
<b>Net Payroll Savings from Automation*</b>	<b>\$ 2,061,584</b>	<b>\$ 202,137</b>	<b>\$ 2,263,720</b>
Assumed transfer to 9-1-1 of all dispatchable priorities**	68%		
less: 10 Digits callers selecting 9-1-1 PT option	\$ (2,229,708)		
<b>Net Payroll Savings from Automation**</b>	<b>\$ 1,044,342</b>		

\* Assumes only calls consistent with Police Priority Codes 1-3 are directed to 9-1-1 PT; effective rate = 68% x 54%

\*\* Assumes all callers with non-informational Police needs select 9-1-1 PT option

# In conjunction with HEC management personnel, we calculated the number of physical and roster Telecommunicators required to staff for the expected hourly call volumes, both including and excluding the 10 digits calls. For this exercise, we used the same standard government issued staffing matrix used by HEC management to quantify the numbers required at each activity level.

## Appendix D-19

### Houston Emergency Center Police Dispatch Call Volume Activities by Priority

		Call Volumes Priority 1	Call Volumes Priority 2	Call Volumes Priority 3	Total
2003	January	2,290	11,980	51,106	65,376
	February	1,949	11,328	47,009	60,286
	March	2,186	13,343	56,874	72,403
	April	2,157	13,275	57,633	73,065
	May	2,316	14,296	62,214	78,826
	June	2,314	13,757	57,885	73,956
	July	2,291	13,396	58,035	73,722
	August	2,278	13,738	56,255	72,271
	September	2,226	13,212	56,052	71,490
	October	2,437	13,421	59,024	74,882
	November	2,185	13,244	58,216	73,645
	December	2,526	13,332	59,513	75,371
	Total	<u>27,155</u>	<u>158,322</u>	<u>679,816</u>	<u>865,293</u>
2004	January	2,366	12,927	58,445	73,738
	February	2,184	12,560	53,755	68,499
	March	2,507	14,016	61,133	77,656
	April	2,339	13,715	59,945	75,999
	May	2,468	14,268	64,010	80,746
	June	2,186	13,511	59,981	75,678
	July	2,412	14,183	61,826	78,421
	August	2,488	13,606	59,908	76,002
	September	2,260	13,370	58,678	74,308
	October	2,485	14,440	62,032	78,957
	November	2,215	13,680	56,712	72,607
	December	2,266	14,041	58,104	74,411
	Total	<u>28,176</u>	<u>164,317</u>	<u>714,529</u>	<u>907,022</u>
2005	January	2,270	14,044	56,957	73,271
	February	2,054	13,087	51,240	66,381

Source: Appendix E-7



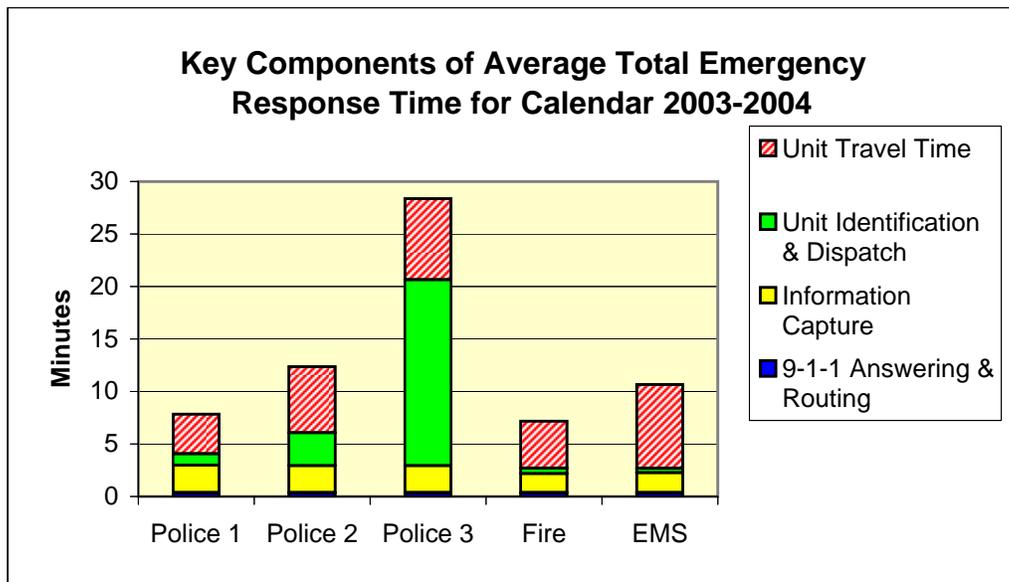
**Houston Emergency Center  
Calendar 2003-2004  
End to End Emergency Response Time by Key Functional Components**

	Response Time in Minutes				
	Police 1	Police 2	Police 3	Fire	EMS
9-1-1 Answering & Routing	0.4	0.4	0.4	0.4	0.4
Information Capture	2.6	2.6	2.6	1.8	1.9
Unit Identification & Dispatch	1.1	3.1	17.7	0.5	0.4
Unit Travel Time	3.8	6.3	7.7	4.5	8.0
<b>Total (Minutes)</b>	<b>7.9</b>	<b>12.4</b>	<b>28.4</b>	<b>7.2</b>	<b>10.7</b>

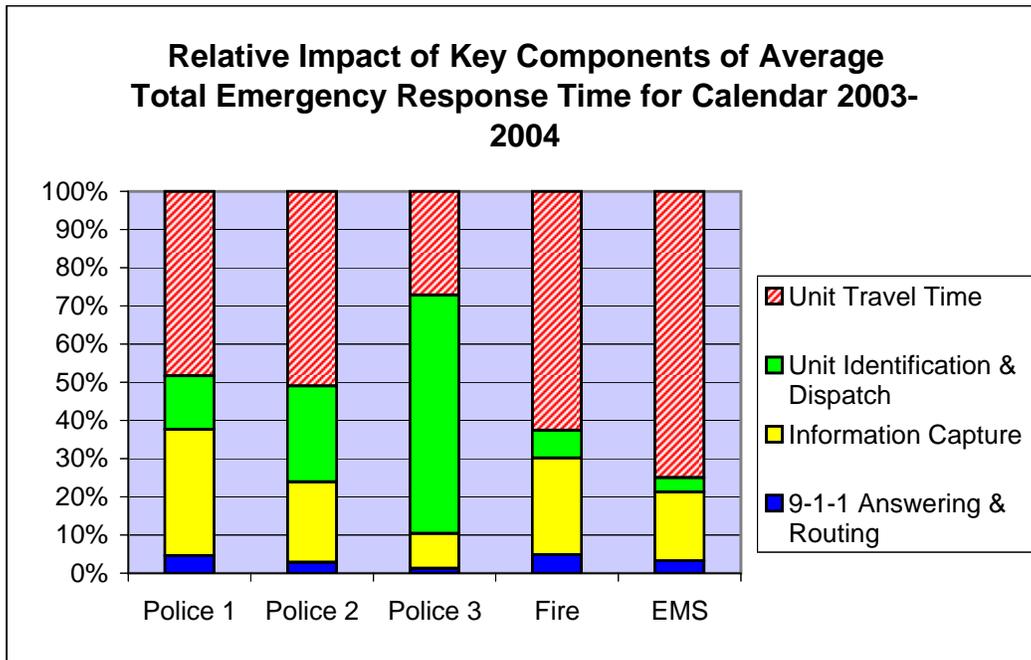
	Percentage of Response Time				
	Police 1	Police 2	Police 3	Fire	EMS
9-1-1 Answering & Routing	5%	3%	1%	5%	3%
Information Capture	33%	21%	9%	25%	18%
Unit Identification & Dispatch	14%	25%	63%	7%	4%
Unit Travel Time	48%	51%	27%	63%	75%
	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Houston Emergency Center  
Calendar 2003-2004

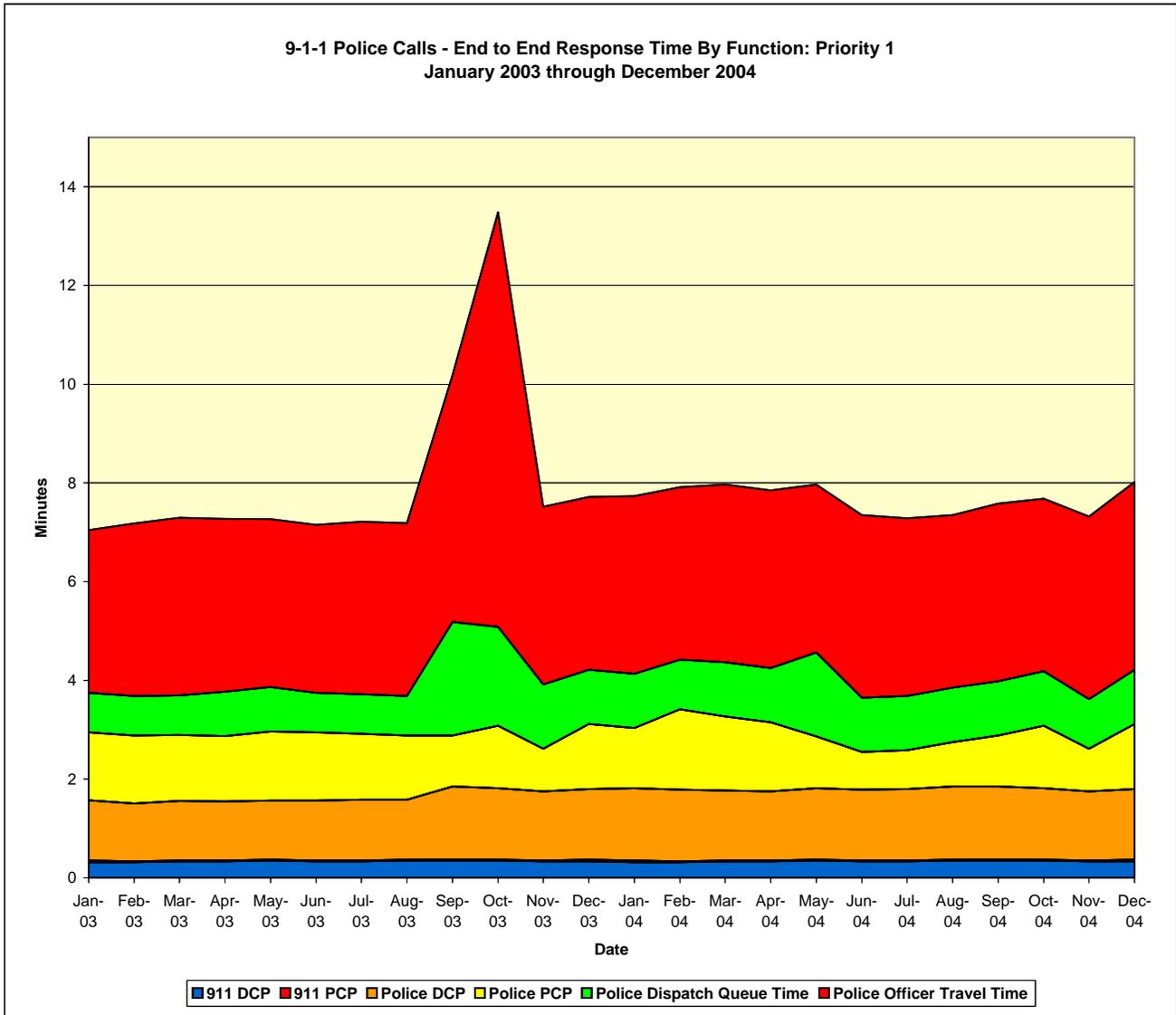
Key Components of Average Total Emergency Response Time for Calendar 2003-2004



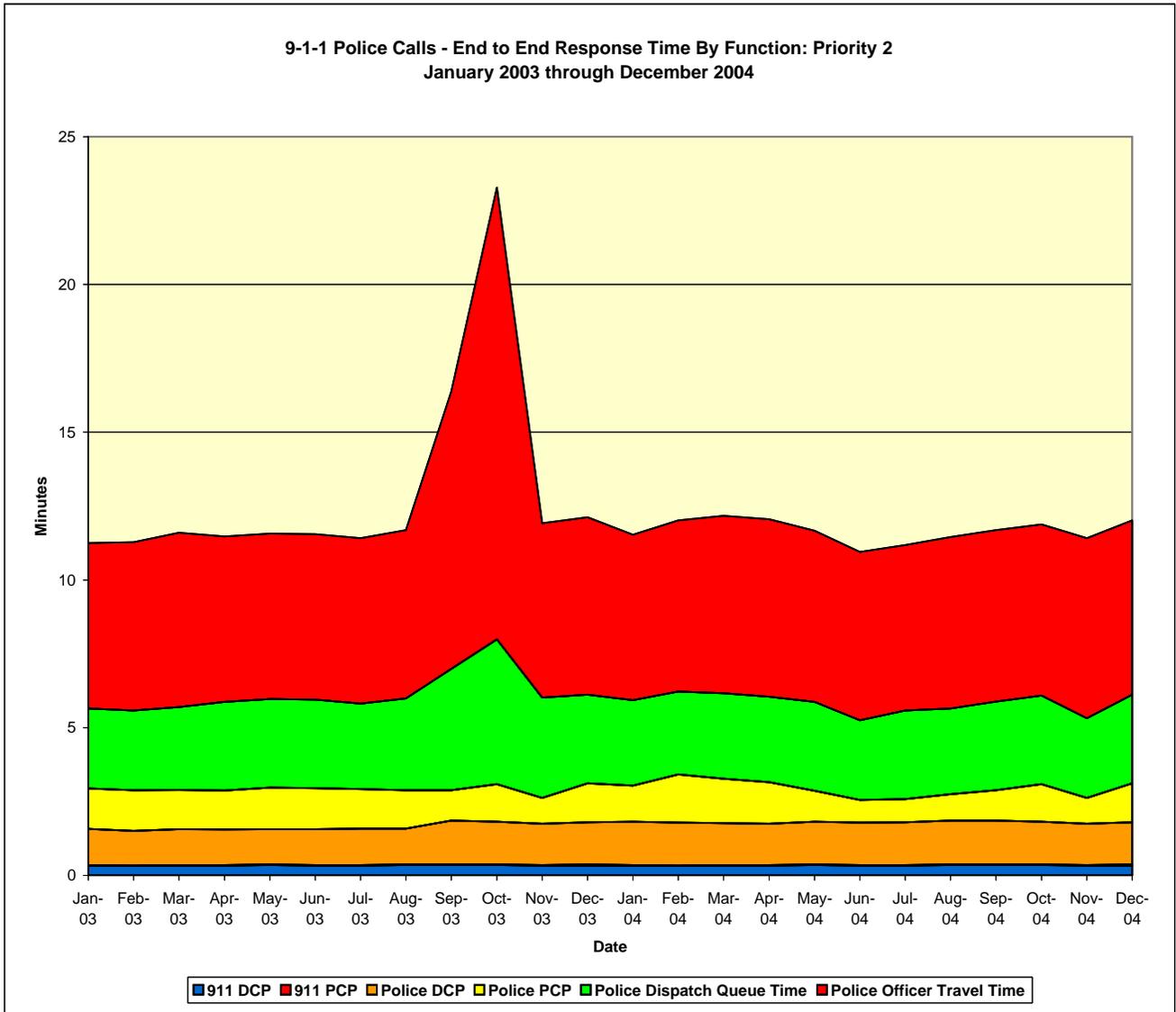
Houston Emergency Center  
 Calendar 2003-2004  
 Relative Impact of Key Components of Average Total Emergency Response Time  
 for Calendar 2003-2004



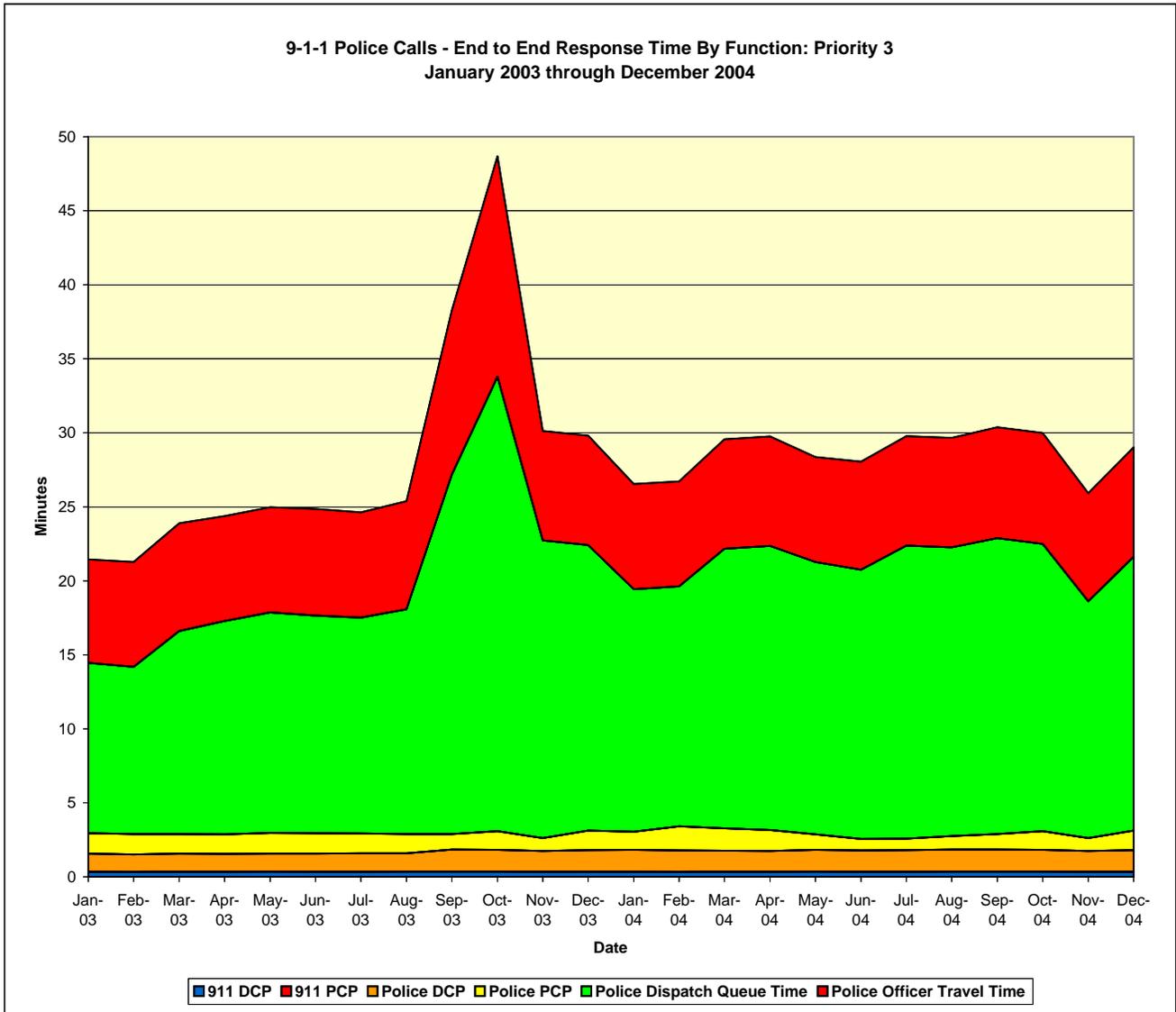
Houston Emergency Center  
 9-1-1 Police Calls - End to End Response Time By Function - Priority 1  
 January 2003 through December 2004



Houston Emergency Center  
 9-1-1 Police Calls - End to End Response Time By Function - Priority 2  
 January 2003 through December 2004



Houston Emergency Center  
 9-1-1 Police Calls - End to End Response Time By Function - Priority 3  
 January 2003 through December 2004

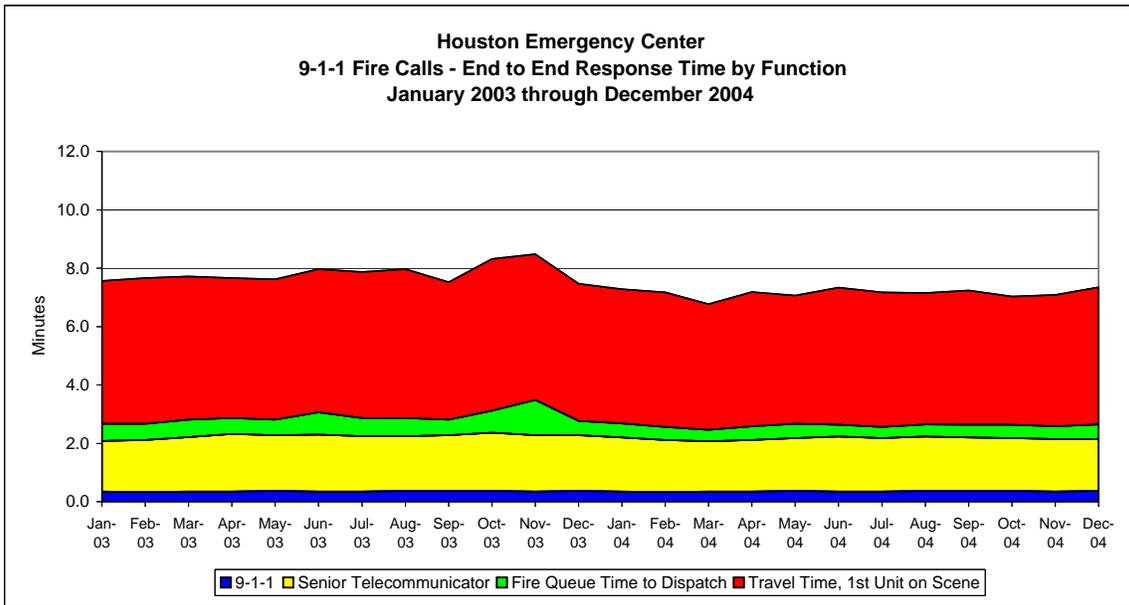


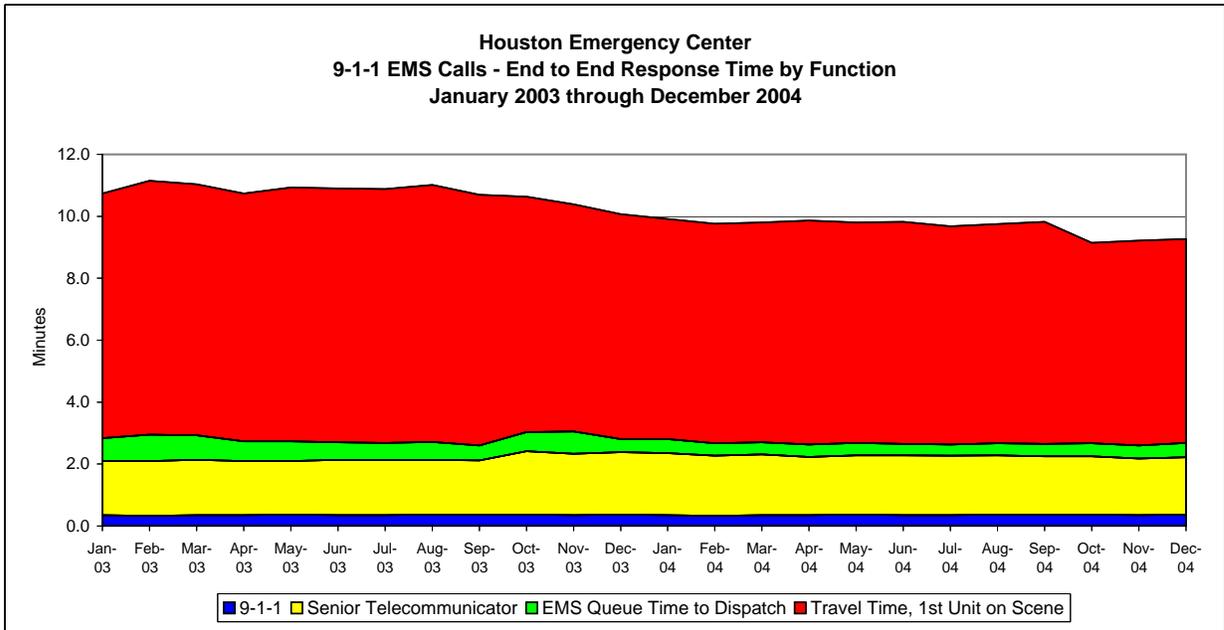
# Appendix E-7

## Houston Emergency Center Police Dispatch Activities - Priority 1, 2 and 3 Calls

	Call Volumes			Call Volumes			Queue Time			Travel Time			Total Response			Queue as %		
	Priority 1	Priority 2	Priority 3	Priority 1	Priority 2	Priority 3	Priority 1	Priority 2	Priority 3	Priority 1	Priority 2	Priority 3	Priority 1	Priority 2	Priority 3	Priority 1	Priority 2	Priority 3
Jan-03	2,290	11,980	51,106	0.8	2.7	11.5	3.3	5.6	7.0	4.2	8.3	18.5	19%	33%	62%			
Feb-03	1,949	11,328	47,009	0.8	2.7	11.3	3.5	5.7	7.1	4.3	8.4	18.4	19%	32%	61%			
Mar-03	2,186	13,343	56,874	0.8	2.8	13.7	3.6	5.9	7.3	4.4	8.7	21.0	18%	32%	65%			
Apr-03	2,157	13,275	57,633	0.9	3.0	14.4	3.5	5.6	7.1	4.4	8.6	21.5	20%	35%	67%			
May-03	2,316	14,296	62,214	0.9	3.0	14.9	3.4	5.6	7.1	4.3	8.6	22.0	21%	35%	68%			
Jun-03	2,314	13,757	57,885	0.8	3.0	14.7	3.4	5.6	7.2	4.2	8.6	21.9	19%	35%	67%			
Jul-03	2,291	13,396	58,035	0.8	2.9	14.6	3.5	5.6	7.1	4.3	8.5	21.7	19%	34%	67%			
Aug-03	2,278	13,738	56,255	0.8	3.1	15.2	3.5	5.7	7.3	4.3	8.6	22.5	19%	36%	68%			
Sep-03	2,226	13,212	56,052	2.3	4.1	24.3	5.0	9.4	11.1	7.3	13.5	35.4	32%	30%	69%			
Oct-03	2,437	13,421	59,024	2.0	4.9	30.7	8.4	15.3	14.9	10.4	20.2	45.6	19%	24%	67%			
Nov-03	2,185	13,244	58,216	1.3	3.4	20.1	3.6	5.9	7.4	4.9	9.3	27.5	27%	37%	73%			
Dec-03	2,526	13,332	59,513	1.1	3.0	19.3	3.5	6.0	7.4	4.6	9.0	26.7	24%	33%	72%			
Jan-04	2,366	12,927	58,445	1.1	2.9	16.4	3.6	5.6	7.1	4.7	8.5	23.5	23%	34%	70%			
Feb-04	2,184	12,560	53,755	1.0	2.8	16.2	3.5	5.8	7.1	4.5	8.6	23.3	22%	33%	70%			
Mar-04	2,507	14,016	61,133	1.1	2.9	18.9	3.6	6.0	7.4	4.7	8.9	26.3	23%	33%	72%			
Apr-04	2,339	13,715	59,945	1.1	2.9	19.2	3.6	6.0	7.4	4.7	8.9	26.6	23%	33%	72%			
May-04	2,468	14,268	64,010	1.7	3.0	18.4	3.4	5.8	7.1	5.1	8.8	25.5	23%	34%	72%			
Jun-04	2,186	13,511	59,981	1.1	2.7	18.2	3.7	5.7	7.3	4.8	8.4	25.5	23%	32%	71%			
Jul-04	2,412	14,183	61,826	1.1	3.0	19.8	3.6	5.6	7.4	4.7	8.6	27.2	23%	35%	73%			
Aug-04	2,488	13,606	59,908	1.1	2.9	19.5	3.5	5.8	7.4	4.6	8.7	26.9	24%	33%	72%			
Sep-04	2,260	13,370	58,678	1.1	3.0	20.0	3.6	5.8	7.5	4.7	8.8	27.5	23%	34%	73%			
Oct-04	2,485	14,440	62,032	1.1	3.0	19.4	3.5	5.8	7.5	4.6	8.8	26.9	24%	34%	72%			
Nov-04	2,215	13,680	56,712	1.0	2.7	16.0	3.7	6.1	7.3	4.7	8.8	23.3	21%	31%	69%			
Dec-04	2,266	14,041	58,104	1.1	3.0	18.5	3.8	5.9	7.4	4.9	8.9	25.9	22%	34%	71%			
Jan-05	2,270	14,044	56,957	1.0	2.7	16.6	3.6	5.4	7.2	4.6	8.1	23.8	22%	33%	70%			
Feb-05	2,054	13,087	51,240	1.0	2.9	15.5	3.6	5.6	7.2	4.6	8.5	22.7	22%	34%	68%			
Average	2,294	13,453	57,790	1.1	3.0	17.6	3.8	6.3	7.7	4.9	9.3	25.3	23%	33%	69%			

	Call Volumes			Queue Time			Travel Time			Total Response			Queue as %		
	Priority 1	Priority 2	Priority 3	Priority 1	Priority 2	Priority 3	Priority 1	Priority 2	Priority 3	Priority 1	Priority 2	Priority 3	Priority 1	Priority 2	Priority 3
Jan-03	65,376	2,290	11,980	0.8	2.7	11.5	3.3	5.6	7.0	4.2	8.3	18.5	19%	33%	62%
Jan-05	73,271	2,270	14,044	1.0	2.7	16.6	3.6	5.4	7.2	4.6	8.1	23.8	22%	33%	70%
% Change	12%	-1%	17%	25%	0%	44%	9%	-4%	3%	10%	-2%	29%	3%	1%	8%
Feb-03	60,286	1,949	11,328	0.8	2.7	11.3	3.5	5.7	7.1	4.3	8.4	18.4	19%	32%	61%
Feb-05	66,381	2,054	13,087	1	2.9	15.5	3.6	5.6	7.2	4.6	8.5	22.7	22%	34%	68%
% Change	10%	5%	16%	25%	7%	37%	3%	-2%	1%	7%	1%	23%	3%	2%	7%





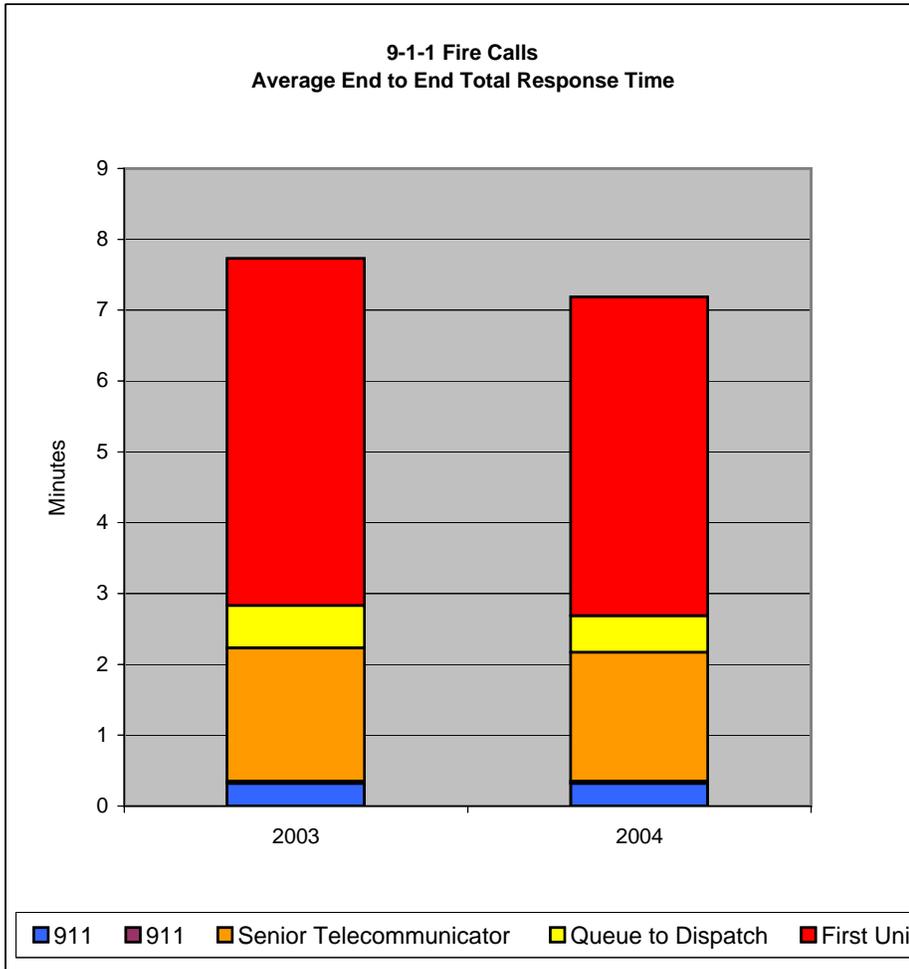
Appendix E-10

Houston Emergency Center  
9-1-1 Fire / EMS Calls - End to End Response Time by Function  
January 2003 through December 2004

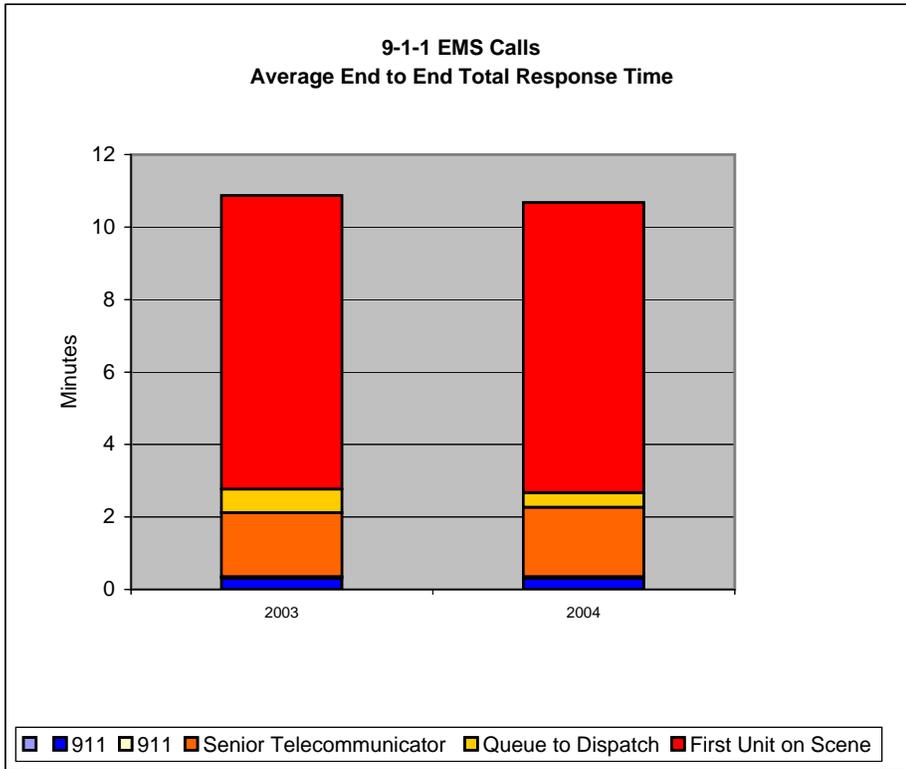
All Times in Minutes

	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	
<b>FIRE</b>																									
9-1-1	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Senior Telecommunicator	1.7	1.8	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.8	1.8	1.7	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8
Fire Queue Time to Dispatch	0.6	0.6	0.6	0.6	0.5	0.8	0.6	0.6	0.5	0.8	1.2	0.5	0.5	0.5	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
Travel Time, 1st Unit on Scene	4.9	5.0	4.9	4.8	4.8	4.9	5.0	5.1	4.7	5.2	4.7	4.6	4.6	4.6	4.3	4.6	4.4	4.4	4.6	4.5	4.6	4.4	4.5	4.7	4.7
<b>FIRE Total Response Time</b>	<b>7.6</b>	<b>7.7</b>	<b>7.7</b>	<b>7.7</b>	<b>7.6</b>	<b>8.0</b>	<b>7.9</b>	<b>8.0</b>	<b>7.5</b>	<b>8.3</b>	<b>8.5</b>	<b>7.5</b>	<b>7.3</b>	<b>7.2</b>	<b>6.8</b>	<b>7.2</b>	<b>7.1</b>	<b>7.3</b>	<b>7.2</b>	<b>7.1</b>	<b>7.2</b>	<b>7.0</b>	<b>7.1</b>	<b>7.1</b>	<b>7.3</b>
<b>EMS</b>																									
9-1-1	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Senior Telecommunicator	1.7	1.8	1.8	1.7	1.7	1.8	1.8	1.8	1.7	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8
EMS Queue Time to Dispatch	0.7	0.9	0.8	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.7	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
Travel Time, 1st Unit on Scene	7.9	8.2	8.1	8.0	8.2	8.2	8.2	8.3	8.1	7.6	7.3	7.3	7.1	7.1	7.1	7.2	7.1	7.2	7.0	7.1	7.2	6.5	6.6	6.6	6.8
<b>EMS Total Response Time</b>	<b>10.7</b>	<b>11.1</b>	<b>11.0</b>	<b>10.7</b>	<b>10.9</b>	<b>10.9</b>	<b>10.9</b>	<b>11.0</b>	<b>10.7</b>	<b>10.6</b>	<b>10.4</b>	<b>10.1</b>	<b>9.9</b>	<b>9.8</b>	<b>9.8</b>	<b>9.9</b>	<b>9.8</b>	<b>9.8</b>	<b>9.7</b>	<b>9.7</b>	<b>9.8</b>	<b>8.1</b>	<b>9.2</b>	<b>9.2</b>	<b>9.3</b>

# Appendix E-11



## Appendix E-12





## Appendix F-1

### Houston Emergency Center Potential Savings from Use of Civilians and Classified Liaison Specialists per Scenario 4

Personnel	Function	Head (1)	Current		Head	Future		Savings Total
			Cost	Total		Cost	Total	
Deputy Chief	Fire/EMS Dispatch	1	65,000	\$ 65,000	-	65,000	\$ -	\$ 65,000
District Chief	Fire/EMS Dispatch	4	57,000	\$ 228,000	-	57,000	\$ -	\$ 228,000
Senior Captains	Fire/EMS Dispatch	15	52,000	\$ 780,000	1 (2)	52,000	\$ 52,000	\$ 728,000
Junior Captains	Fire/EMS Dispatch	41	44,400	\$ 1,820,400	11 (3)	44,400	\$ 488,400	\$ 1,332,000
Engineer Operators	Fire/EMS Dispatch	14	42,000	\$ 588,000	-	42,000	\$ -	\$ 588,000
				\$ -				
Captain	Police Dispatch	1	86,613	\$ 86,613	-	86,613	\$ -	\$ 86,613
Lieutenants	Police Dispatch	4	75,607	\$ 302,428	1 (4)	75,607	\$ 75,607	\$ 226,821
Sergeants	Police Dispatch	15	63,911	\$ 958,665	10 (5)	63,911	\$ 639,110	\$ 319,555
Civilian Dispatchers	Fire/EMS Dispatch	-	-	\$ -	36 (6)	36,000	\$ 1,296,000	\$ (1,296,000)
Civilian Supervisors	Fire/EMS Dispatch	-	-	\$ -	10 (7)	44,000	\$ 440,000	\$ (440,000)
Civilian Supervisors	Police Dispatch	-	-	\$ -	10 (7)	44,000	\$ 440,000	\$ (440,000)
TOTAL (unburdened)				<u>\$4,829,106</u>			<u>\$3,431,117</u>	\$ 1,397,989
Assumed Burden Rate	30%							<u>\$ 419,397</u>
TOTAL SAVINGS								<u>\$ 1,817,386</u>

(1) Based on HFD and HPD staffing plans included in April 24, 2004 memo from the HEC Director

(2) Assuming one Captain to provide overall supervision

(3) Assuming current roster necessitates 84 people to cover 16 positions, therefore approx. 5.25 people needed per position. Assuming two liaison specialists needed,  $2 \times 5.25 = 10.5$ . Therefore 11 positions assumed.

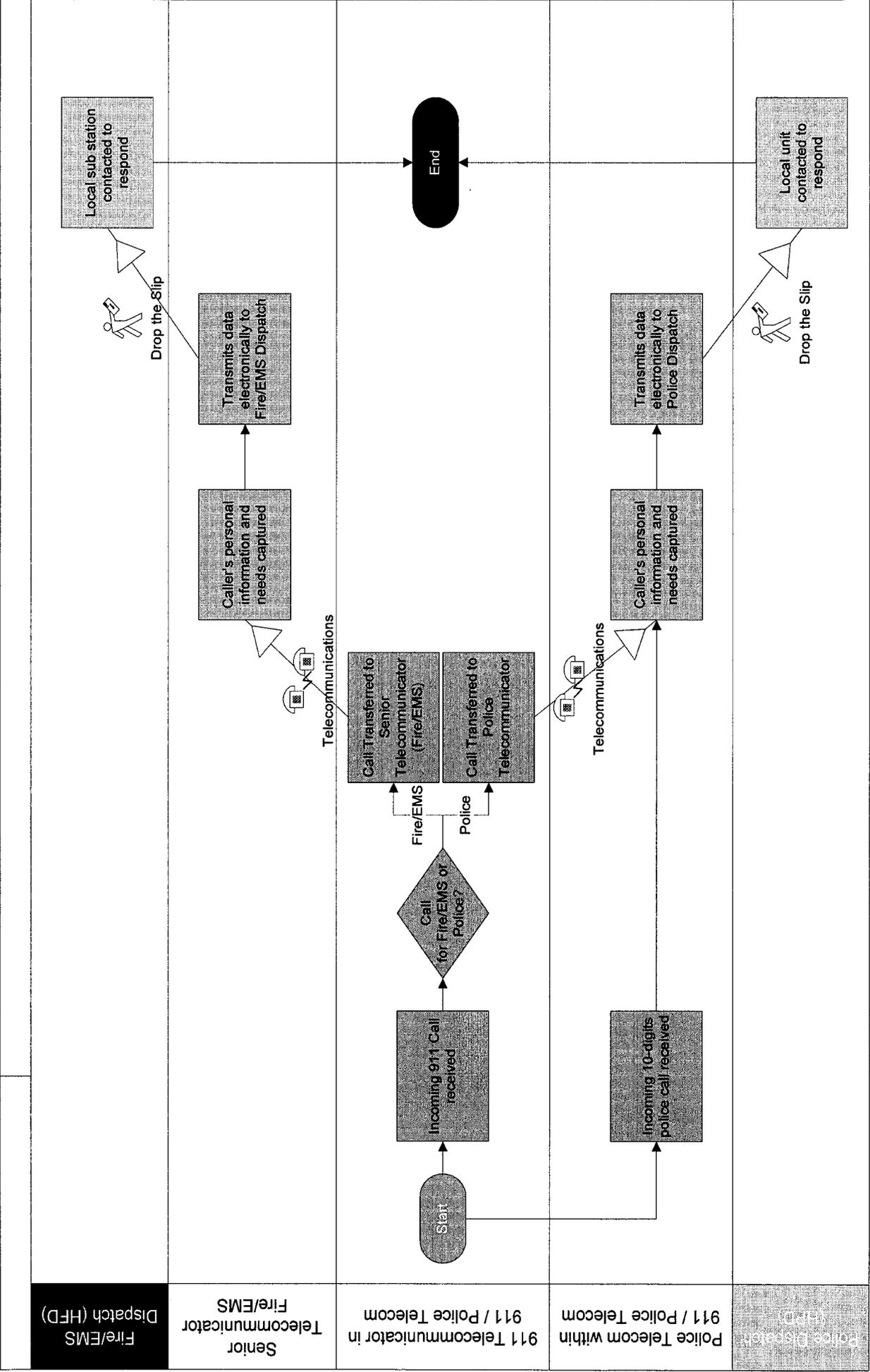
(4) Assuming one Lieutenant to provide overall supervision

(5) Assuming two liaison specialists needed at 3 shifts per day multiplied by industry factor of 1.7 =  $5.1 \times 2 = 10.2$ .

(6) Assuming 3 shifts/day multiplied by 5 mic positions plus 2 call-back positions multiplied by industry factor of 1.7 = 35.7.

(7) Assuming two supervisors per shift multiplied by industry factor of 1.7 = 5.1.





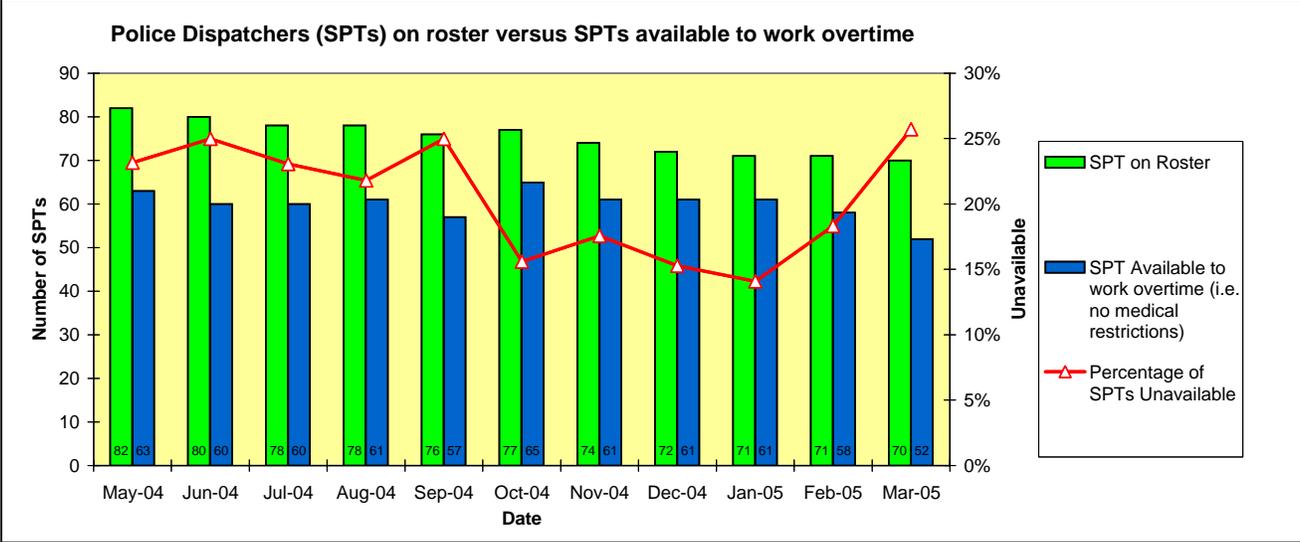


## Appendix H-1

### Houston Emergency Center Authorized and Actual HPD Classified Sergeant and HPD Civilian SPT Staffing

Month/Year	SPT Authorized	SPT's Assigned	SPT Actual	SPT Not Available	SPT Available to Work	Sergeants Authorized	Sergeants Actual	% of Sergeants to SPTs	SPT % of Authorized #
Jan-03	92	83	85	N/A	N/A	13	13	15.29%	92%
Feb-03	92	83	85	N/A	N/A	13	13	15.29%	92%
Mar-03	92	83	84	N/A	N/A	13	13	15.48%	91%
Apr-03	92	83	84	N/A	N/A	13	13	15.48%	91%
May-03	92	83	83	N/A	N/A	18	16	19.28%	90%
Jun-03	92	83	87	N/A	N/A	18	16	18.39%	95%
Jul-03	92	83	86	N/A	N/A	18	16	18.60%	93%
Aug-03	92	83	85	N/A	N/A	21	21	24.71%	92%
Sep-03	92	83	81	N/A	N/A	21	21	25.93%	88%
Oct-03	92	83	81	N/A	N/A	21	21	25.93%	88%
Nov-03	92	83	84	N/A	N/A	21	21	25.00%	91%
Dec-03	92	83	84	N/A	N/A	21	21	25.00%	91%
Jan-04	92	83	84	N/A	N/A	21	21	25.00%	91%
Feb-04	92	83	84	N/A	N/A	21	21	25.00%	91%
Mar-04	92	83	84	N/A	N/A	21	21	25.00%	91%
Apr-04	92	83	82	N/A	N/A	21	21	25.61%	89%
May-04	92	83	82	19	63	21	21	25.61%	89%
Jun-04	92	83	80	20	60	21	21	26.25%	87%
Jul-04	92	83	78	18	60	24	21	26.92%	85%
Aug-04	92	83	78	17	61	24	24	30.77%	85%
Sep-04	92	83	76	19	57	24	24	31.58%	83%
Oct-04	92	83	77	12	65	24	24	31.17%	84%
Nov-04	92	83	74	13	61	24	24	32.43%	80%
Dec-04	92	83	72	11	61	24	23	31.94%	78%
Jan-05	92	83	71	10	61	24	23	32.39%	77%
Feb-05	92	83	71	13	58	24	23	32.39%	77%
Mar-05	92	83	70	18	52	24	22	31.43%	76%

Houston Emergency Center  
Police Dispatchers (SPTs) on Roster versus SPTs Available to Work Overtime



## Appendix I

## Appendix I -1

### Houston Emergency Center Civilian Overtime 2002 - 2005

	Total Overtime Hours Worked			
	2002	2003	2004	2005*
911 -HEC		3,765	5,523	5,768
PT (Police) - HEC	7,411	10,484	14,037	21,476
ST (Fire/EMS) -HEC		5,785	4,717	9,050
SPT Dispatch - HPD**	7,318	16,494	5,558	23,924
* Data annualized for 2005				
** 2004 SPT data for period with HPD only, equivalent HEC data unavailable				

	Total Persons who Worked Overtime		
	2003	2004	2005
911	29	29	30
PT (Police)	66	84	77
ST (Fire/EMS)	34	33	33

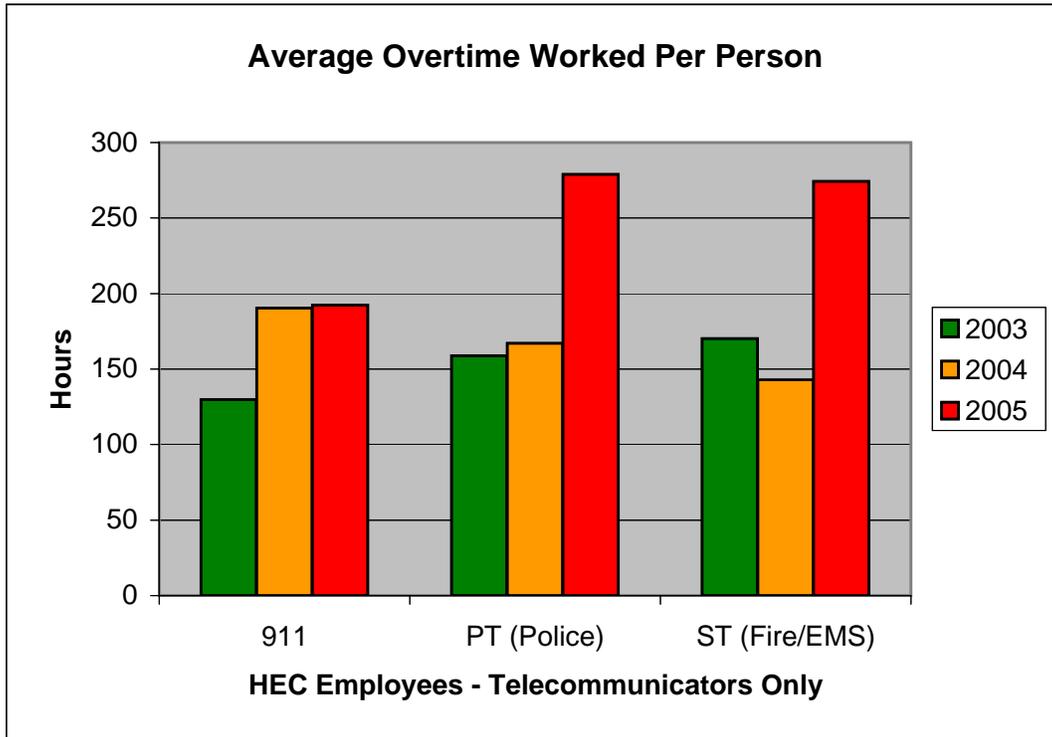
	Total Authorized Roster		
	2003	2004	2005
911	30	31	41
PT (Police)	93	89	85
ST (Fire/EMS)	34	35	34

	Total Overtime Hours Per Person		
	2003	2004	2005*
911	129.8	190.4	192.3
PT (Police)	158.8	167.1	278.9
ST (Fire/EMS)	170.1	142.9	274.2

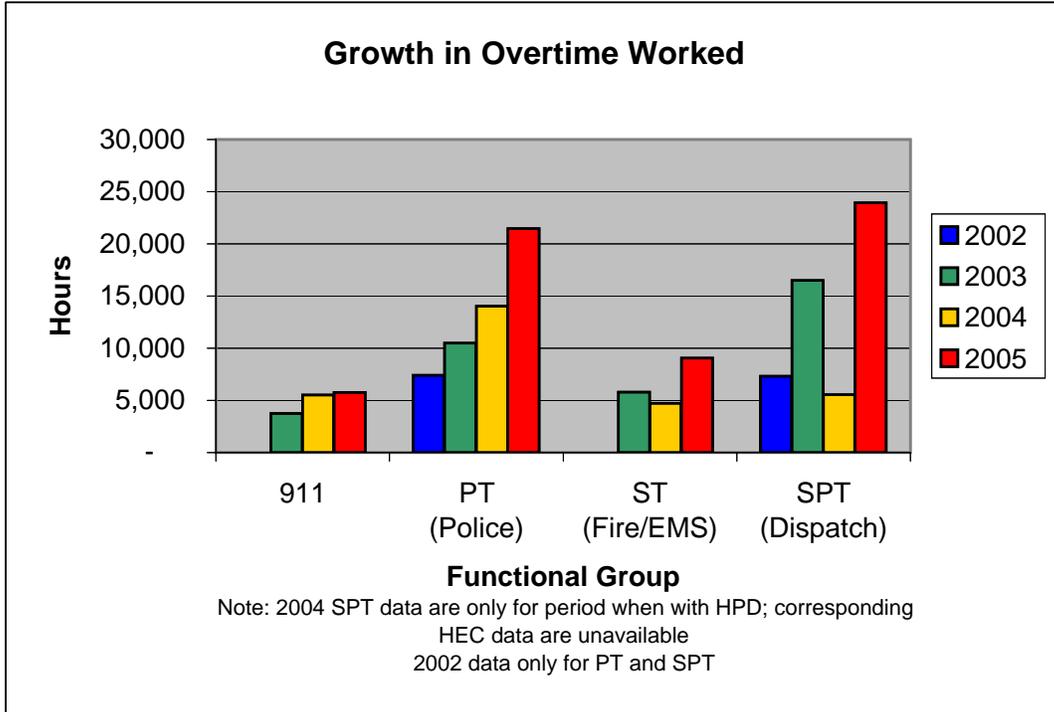
Estimated HEC total cost for 2005 @ \$22/hour including overtime premium	(5,768+21,476+9,050) * 22 =	\$ 798,468
Budget for Police Call Taking and 9-1-1 Network		\$ 498,532
Percentage of budget		160%

## Appendix I-2

Houston Emergency Center  
HEC Employees - Telecommunicators Only  
Average Overtime Worked Per Person 2003 - 2005



Houston Emergency Center  
Growth In Overtime Hours Worked 2002 - 2005



Houston Emergency Center  
 Analysis of March 2005 Staffing & Overtime Requirements and Expense  
 Analysis of Extrapolated Annualized Overtime Expense  
 Police Dispatchers (Senior Police Telecommunicators)

SPTs Available for Drafting

	Minimum overtime Headcount		Maximum overtime Headcount	
Total SPTs on roster	70	100%	70	100%
less those Injured on Duty/Relieved of Duty	(2)		(2)	
<b>SPTs Available</b>	<u>68</u>		<u>68</u>	
less on Restricted Duty - intermittent	-		(18)	
less on Restricted Duty - not intermittent	(5)		(5)	
<b>SPTs Available for overtime</b>	<u><u>63</u></u>	90%	<u><u>45</u></u>	64%

Impact per SPT of overtime required in March 2005 to staff positions

Shift Positions to be Filled - Total / Per Available Person	315		5.0		7.0
Equivalent Overtime Hours - Total / Per Available SPT	2,520		40	to	56
Effective overtime hours per week per SPT available for drafting			23%		32%
Average shifts per day	10.2				

Cost of Overtime Staffing

Base hourly salary expense (incl. Benefits)	\$ 22.70	\$	57,198
Overtime at 50% premium		\$	<u>28,599</u>
Total Cost		\$	<u>85,796</u>

Annualized Cost of Overtime, including Premium

Base	\$	673,455
overtime Premium	\$	<u>336,728</u>
Total	\$	<u>1,010,183</u>

Cost of additional regular staff to cover average shifts per day

Average number of shifts / headcount per day	10.2
Industry factor for weekly days off, vacations, holidays etc.	1.7
Total headcount	17.3
Annualized cost	<u>\$ 815,527</u>

Annualized savings	<u><u>\$ 194,656</u></u>
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## Appendix I-5

### Houston Emergency Center Analysis of HFD Classified Fire/EMS Dispatch Staffing Requirements and Costs

Staffing Required	Headcount	Hours	Amount
Core positions	12		
Coverage for breaks	3		
	15		
Cover vacation, hols etc.	3		
Total per shift	18	240	
 Total per week for two shifts/day	 252	 3,360	
 Total personnel required Based on 3 x 13:20 hours shifts per week	 84		
 Actual roster count (2 shifts/day x 36 each)	 72		
 <u>Shortfall and Related Costs</u>			
 Headcount shortfall per week	 12	 480	
 <u>Overtime Costs to Cover Shortfall</u>			
 Salary - Junior Captain per scale			\$ 21.35
plus burden at estimated 30%			\$ 6.40
 Total cost to cover shortfall hours at base rate			\$ 13,320
Overtime pay rate premium at 50%			\$ 6,660
 Total Cost per Week			\$ 19,980
 <u>Incremental Cost of Staffing via Overtime versus Regular Salary</u>			
 Total Overtime Cost Per Week			\$ 19,980
Total Overtime Cost Per Annum			<b>\$ 1,041,757</b>
 Incremental Cost Attributable to 50% Overtime Premium			<b>\$ 347,252</b>

## Appendix I-6

### Houston Emergency Center HPD Civilian Dispatcher (SPT) Overtime Activity per Database Queries

Year	Hours Worked July-June Fiscal	Hours Paid July-June Fiscal	Paid \$ July-June Fiscal	Budget July-June Fiscal	Hours Worked Sept-Aug Benefits	Hours Paid Sept-Aug Benefits	Paid \$ Sept-Aug Benefits
2001	1,227	1,100	\$ 23,242	\$ 366,643	n/a	n/a	n/a
2002	3,048	2,549	\$ 55,000	\$ 366,643	n/a	n/a	n/a
2003	2,462	2,759	\$ 62,142	\$ 20,595	2,329	2,527	\$ 56,600
2004	2,935	2,341	\$ 58,611	\$ 21,538	5,558	4,566	\$ 116,240
YTD 2005 *	18,577	17,555	\$ 462,057	\$ 350,000	15,949	15,304	\$ 403,919
Monthly Average 2005	1,858	1,756	\$ 46,206		1,994	1,913	\$ 50,490
Annualized 2005	22,292	21,066	\$ 554,468		23,924	22,956	\$ 605,879
with benefits @ 30%			\$ 720,809				\$ 787,642
Average overtime pay / hour 2005			\$ 26.32				\$ 26.39
Average pay / hour - base			\$ 17.55				\$ 17.60
Annualized base			\$ 36,498				\$ 36,598

\* Through April 28, 2005



## Appendix J-1

### Houston EmergencyCenter Sick FMLA Comparison

	Benefit Year	Group	Staffing	Number of Staff with FMLA Status	% of Staff with FMLA	Hours Taken of Sick FMLA	Average Number of Hours Taken per Employee
<b>Police Staffing</b>							
	2003	911 Supervisors (Police)	17	2	12%	648.0	324.0
	2004	911 Supervisors (Police)	17	5	29%	648.0	129.6
(a)	2005	911 Supervisors (Police)	15	4	27%	562.3	140.6
	2003	Police Telecommunicators	93	26	28%	949.6	36.5
	2004	Police Telecommunicators	89	43	48%	2,009.6	46.7
(a)	2005	Police Telecommunicators	85	37	44%	1,885.2	51.0
	2003	Senior Police Telecommunicators (Dispatchers)	85	13	15%	332.5	25.6
<b>HEC Staffing (Civilian)</b>							
	2003	911 Telecommunicators	30	6	20%	578.3	96.4
	2004	911 Telecommunicators	31	5	16%	143.7	28.7
(a)	2005	911 Telecommunicators	41	7	17%	890.2	127.2
	2003	Sr 911 Telecommunicators (Fire/EMS)	34	8	24%	288.5	36.1
	2004	Sr 911 Telecommunicators (Fire/EMS)	35	17	49%	844.9	49.7
(a)	2005	Sr 911 Telecommunicators (Fire/EMS)	34	9	26%	784.1	87.1
	2003	911 Supervisors (Fire/EMS)	5	1	20%	-	-
	2004	911 Supervisors (Fire/EMS)	5	1	20%	272.0	272.0
(a)	2005	911 Supervisors (Fire/EMS)	5	-	-	-	-

(a) Number includes annualized estimate for the remaining 2005 Benefit Year

Appendix J-2

Houston Emergency Center  
FMLA Usage for Benefit Year 2003 (September 2002 - August 2003)

	# of Employees	# of Employees w/FMLA	% of Group	Sick FMLA	Vac FMLA	Personal Leave FMLA	Donated Leave	Unpaid FMLA	Total	% of Overall Total	Avg Hours per Employee
911 Telecommunicators	30	6	20.00%	578.30	223.25			378.30	1179.85	14%	196.64
Police Telecommunicators	93	26	27.96%	949.55	1482.01		138.58	2248.60	4818.74	56%	185.34
Sr. 911 Telecommunicators	34	8	23.53%	288.45	84.15			24.00	396.60	5%	49.58
Sr. Police Telecommunicators (Dispatch)	85	13	15.29%	332.45	90.15			858.00	1280.60	15%	640.30
911 Supervisors (Fire/EMS)	5	1	20.00%	0.00	0.00			0.00	0.00	0%	0.00
911 Supervisors (911/Police)	17	2	11.76%	648.00	16.00			0.00	664.00	8%	332.00
IT Administration	12	0	0.00%	0.00	0.00			0.00	0.00	0%	0.00
Administrative Staff	10	0	0.00%	0.00	0.00			0.00	0.00	0%	#DIV/0!
Office of Emergency Mgmt.	7	1	14.29%	139.30	93.30	16.00		0.00	248.60	3%	124.30
Director's Office	2	0	0.00%	0.00	0.00			0.00	0.00	0%	0.00
<b>TOTAL</b>	<b>295</b>	<b>57</b>	<b>19.32%</b>	<b>2,936.05</b>	<b>1,988.86</b>	<b>16.00</b>	<b>138.58</b>	<b>3,508.90</b>	<b>8,588.39</b>		<b>150.67</b>

Excluding for comparison purposes Sr. Police Telecommunicators (Dispatch) as they reverted to HPD and are not included in 2004 and 2005 statistics											
	85	13	15.29%	332.45	90.15			858.00	1280.60	15%	640.30
<b>TOTAL</b>	<b>210</b>	<b>44</b>	<b>20.95%</b>	<b>2603.6</b>	<b>1898.71</b>	<b>16</b>	<b>138.58</b>	<b>2650.9</b>	<b>7307.79</b>		<b>166.09</b>

Provided by HEC Management

Houston Emergency Center  
FMLA Usage for Benefit Year 2004 (September 2003 - August 2004)

	# of Employees	# of Employees w/FMLA	% of Group	Sick FMLA	Vac FMLA	Unpaid FMLA	Total	% of Overall Total	Avg Hours per Employee
911 Telecommunicators	31	5	16.13%	143.65	312.96	274.24	730.85	6%	146.17
Police Telecommunicators	89	43	48.31%	2009.61	2982.01	3948.60	8940.22	69%	207.91
Sr. 911 Telecommunicators	35	17	48.57%	844.90	849.95	87.00	1781.85	14%	104.81
911 Supervisors (Fire/EMS)	5	1	20.00%	272.00	112.00	0.00	384.00	3%	384.00
911 Supervisors (911/Police)	17	5	29.41%	648.00	16.00	0.00	664.00	5%	132.80
IT Administration	19	1	5.26%	296.00	0.00	0.00	296.00	2%	296.00
Administrative Staff	10	3	30.00%	71.00	71.30	0.00	142.30	1%	47.43
Director's Office	2	0	0.00%	0.00	0.00	0.00	0.00	0%	
<b>TOTAL</b>	<b>208</b>	<b>75</b>	<b>36.06%</b>	<b>4,285.16</b>	<b>4,344.22</b>	<b>4,309.84</b>	<b>12,939.22</b>		<b>172.52</b>

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Houston Emergency Center  
 FMLA Usage for Benefit Year 2005 (September 2004 - March 2005)  
 Seven Months

	# of Employees	# of Employees w/FMLA	% of Group	Sick FMLA	Vac FMLA	Unpaid FMLA	Total	% of Overall Total	Avg Hours per Employee
911 Telecommunicators	41	7	17.07%	519.30	123.30	216.00	858.60	11%	122.66
Police Telecommunicators	85	37	43.53%	1099.72	1519.01	2331.55	4950.28	66%	133.79
Sr. 911 Telecommunicators	34	9	26.47%	457.40	370.40	24.00	851.80	11%	94.64
911 Supervisors (Fire/EMS)	5	0	0.00%	0.00	0.00	0.00	0.00	0%	0.00
911 Supervisors (911/Police)	15	4	26.67%	328.00	169.60	0.00	497.60	7%	124.40
IT Administration	24	0	0.00%				0.00	0%	0.00
Administrative Staff	11	2	18.18%	184.00	48.00		232.00	3%	116.00
Director's Office	2	1	50.00%	80.00			80.00	1%	80.00
<b>TOTAL</b>	<b>217</b>	<b>60</b>	<b>27.65%</b>	<b>2,668.42</b>	<b>2,230.31</b>	<b>2,571.55</b>	<b>7,470.28</b>		<b>124.50</b>

Provided by HEC Management



Appendix K-1

Houston Emergency Center  
Salaries / Pay Rates by Function

	Annual Base Rate	Annual Base w/Burden	Hourly Base Rate	Hourly Base w/Burden	Hourly at Overtime Rate	Hourly Overtime w/Burden	Source of Data
<b>HEC</b>							
911 Telecommunicator	\$ 29,042	\$ 37,754	\$ 13.96	\$ 18.15	\$ 20.94	\$ 27.23	Overtime Analysis 2005 Benefit Year To Date
Police Telecommunicator (PT)	\$ 30,420	\$ 39,546	\$ 14.62	\$ 19.01	\$ 21.94	\$ 28.52	Overtime Analysis 2005 Benefit Year To Date
Fire/EMS Sr. Telecommunicator (ST)	\$ 33,982	\$ 44,177	\$ 16.34	\$ 21.24	\$ 24.51	\$ 31.86	Overtime Analysis 2005 Benefit Year To Date
911/Police Supervisor	\$ 35,552	\$ 46,217	\$ 17.09	\$ 22.22	\$ 25.64	\$ 33.33	Overtime Analysis 2005 Benefit Year To Date
Fire/EMS Supervisor	\$ 44,458	\$ 57,795	\$ 21.37	\$ 27.79	\$ 32.06	\$ 41.68	Overtime Analysis 2005 Benefit Year To Date
<b>HFD</b>							
Deputy chief	\$ 65,000	\$ 84,500	n/a	n/a	n/a	n/a	Estimate, based on salaries of lower ranking personnel
District Chief	\$ 57,000	\$ 74,100	n/a	n/a	n/a	n/a	Discussion of HFD Scales with HFD District Chief
Senior Captains	\$ 52,000	\$ 67,600	\$ 25.00	\$ 32.50	\$ 37.50	\$ 48.75	Discussion of HFD Scales with HFD District Chief
Junior Captains	\$ 44,400	\$ 57,720	\$ 21.35	\$ 27.75	\$ 32.02	\$ 41.63	Discussion of HFD Scales with HFD District Chief
Engineer Operators	\$ 42,000	\$ 54,600	\$ 20.19	\$ 26.25	\$ 30.29	\$ 39.38	Discussion of HFD Scales with HFD District Chief
<b>HPD</b>							
Captain	\$ 86,613	\$ 112,597	n/a	n/a	n/a	n/a	Per data provided by on-site HPD Personnel
Lieutenants	\$ 75,607	\$ 98,289	\$ 36.35	\$ 47.25	\$ 54.52	\$ 70.88	Per data provided by on-site HPD Personnel
Sergeants	\$ 63,911	\$ 83,084	\$ 30.73	\$ 39.94	\$ 46.09	\$ 59.92	Per data provided by on-site HPD Personnel
Sr. Police Telecommunicators (SPT)	\$ 36,500	\$ 47,450	\$ 17.55	\$ 22.81	\$ 26.32	\$ 34.22	Fiscal Year To Date 2005 Overtime Paid per HPD database

Notes:

Assumes 30% average burden rate as provided by City of Houston, HPD based on actual 2005 civilian employee payroll expenses



HEC

Analysis of Language Line Costs & Alternatives

Appendix L-1

2004 Language Line Activity

<u>Language</u>	<u>Volume</u>	<u>Total Cost</u>	<u>Split</u>
Spanish	55,125	\$ 387,842	97.9%
Vietnamese	788	\$ 5,544	1.4%
All Other	369	\$ 2,596	0.7%
Total	56,282	\$ 395,982	
Cost/call		7.04	

Estimated Call Handling Requirements

<u>Average</u>	<u>Estimated</u>	<u>Call Handler</u>
<u>Calls / Hour</u>	<u>Duration (sec)</u>	<u>Req'd / Hour</u>
6	120	1

Costs to Cover 1 Head per Shift

<u>Headcount</u>	<u>Premium</u>	<u>Annual</u>	<u>Agent</u>
<u>per month</u>	<u>per month</u>	<u>Cost</u>	<u>Salary</u>
5	\$ 75	\$ 4,500	
		\$ 0.082	
		\$ 0.082	\$ 19.00
			\$ 0.005

Potential recovery through reduced handling time (analysis):

Incremental in-house cost to be recovered (amortized per call)  
 Number of call seconds to be saved to generate equivalent savings  
 Cost / hour fully burdened (estimated based on selected 2005 data)  
 Cost / call second fully burdened

15.47



**Appendix M-1**

**Dispatcher Benefit Comparison for Major Cities in Texas**

	<b>Houston</b>	<b>Austin</b>	<b>Dallas</b>	<b>Ft. Worth</b>	<b>San Antonio</b>
<b>Salary</b> per hour	\$11.83 - \$20.16	\$13.54 - \$21.32	\$14.65 - \$24.17	\$14.92 - \$21.04	\$12.65 - no max
<b>Vacation</b>	1-5 years 10 days 5 years 15 days 6-7 years 16 days 8-9 years 17 days 10-11 years 18 days 12 years 19 days 13 years 20 days 14 years 21 days 15 years 22 days 16 years 23 days 17 years 24 days 18+ years 25 days	5 years or less 12 days 5-10 years 15 days 10-15 years 16.5 days 15-20 years 18 days 20+ years 21 days In addition, everyone receives 2 personal days each year	0-4 years 15 days 5-8 years 17 days 9-14 years 18 days 15-18 years 20 days 19+ years 23 days	0-5 years 15 days 6-10 years 17 days 11-15 years 18 days 16-20 years 20 days 21+ years 23 days	Raises are earned through merit increases and not time in grade 6 months-1 year 5 days 1-5 years 12 days 5-10 years 14 days 10-15 years 16 days 15-20 years 18 days 20-25 years 20 days 25+ years 22 days
<b>Paid Holidays</b>	10 days + 1 floating day	10 or 11 days	9 days	8 days	12 days
<b>Sick Leave</b>	65 hours/year non-used hours matched by the city for the next benefit year 1040 hours maximum	1 day/month no limit on accrual	12 days/year 1440 hours maximum	0-5 years 2 days 6-7 years none 8-10 years 5 days 11-15 years 4 days 15-20 years 5 days 21-25 years 2 days 26+ years 7 days no limit on accrual	0-2 years 5 days/year through 10+ years 10 days/year In addition, unused days are bought back by the city at the end of the benefit year. (maximum of 10 days bought back) No accrual.
<b>Shift Differential</b>	\$0.25 for Evening Shift \$0.35 for Night Shift	\$0.65 for Evening Shift \$0.75 for Night Shift	2% of salary	\$0.50 for Evening Shift \$0.75 for Night Shift	\$0.50 for Evening Shift \$0.50 for Night Shift
<b>Longevity</b>	\$2.00 per year of service paid per pay period	5-7 years up to \$500/yr 7-15 years up to \$1000/yr 15+ years up to \$1500/yr	None	1-3 years \$300/yr 3-6 years \$600/yr 9+ years \$900/yr one lump sum payment	None
<b>Language Pay</b>	\$75/month	\$175/month Must speak at least 50% or more of the shift in the secondary language.	2% of salary	\$50/month	\$50/month



**VIEWS OF RESPONSIBLE OFFICIALS**



# CITY OF HOUSTON

Office of the Mayor

## Interoffice

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Correspondence  
Public Safety and  
Homeland Security

To: Annise Parker  
City Controller

From: Dennis J. Storemski  
Director

Date: June 16, 2005

Subject: **Jefferson Wells Response**

Attached is management's response to the Jefferson Wells recommendations and findings presented in their recent audit of the Houston Emergency Center (HEC).

  
Dennis J. Storemski  
Chair  
Houston Emergency Center Advisory Committee

  
Sharon Counterman  
Director  
Houston Emergency Center

  
David Cutler  
Assistant Chief  
Houston Police Department

  
John (Rick) Flanagan  
Assistant Chief  
Houston Fire Department

**JEFFERSON WELLS  
MANAGEMENT RESPONSE**

**JEFFERSON WELLS' – RECOMMENDATIONS**

Recommendation	Management's Response/Comments	Action Status
<p>Recommend that the City implement a single unified organizational structure at and over the Center, consistent with that outlined in Scenario IV – Unified Structure.</p>	<p>This is a complicated issue and before it can be accomplished, there are statutory, civil service and contractual issues that will make implementation of a unified structure a long-term goal.</p>	
<p>Regardless of the future organizational structure that the City may elect to adopt, the City and the respective HEC, HFD and HPD organizations need to address collectively the significant morale issues pervasive throughout all groups at the Center.</p>	<p>HEC management team agrees that morale is an issue. However, management-labor issues are a change management process that is being worked through and does not happen overnight. It is a lengthy process. These issues are not uncommon when you merge different cultures.</p> <p>In addition to recognizing the problem, a number of programs have been instituted to help employees become empowered to change their outlook and become productive in what changes are implemented. Some of these include Seven Habits training for all supervisory personnel, monthly shift supervisor meetings, existence of an Employees Assistance Program (EAP) office at HEC, scheduling Stress Management classes for all call-taker and dispatch personnel, participation of employees in the Safety Committee meetings, and the development of Employee Review Concern Program (ERCP).</p>	<p>Implemented and on-going</p> <p>All first-line supervisors and management (classified and civilian) completed "Seven Habits" training. First-line civilian supervisors meet monthly to continue team-building process. Diversity and Stress Management training has been provided to all employees, which is on-going. The management team has on-going meetings with human resources regarding several salary "add-ons", such as performance incentive pay and training pay.</p>
<p>The recommendation is that HEC and HPD management immediately start a recruitment</p>	<p>HEC is currently fully staffed in the 9-1-1/Police call taker positions. Three vacant positions exist in the Sr. 911 Telecommunicator (Fire/EMS). This process will continue until all Telecommunicator personnel are able to handle emergency</p>	<p>In progress</p>

## JEFFERSON WELLS' – RECOMMENDATIONS

Recommendation	Management's Response/Comments	Action Status
program to staff the vacancies.	calls. HPD has begun an aggressive campaign through newspaper, radio and television advertisement to recruit Police Telecommunicators (Dispatchers). All Police supervisors are being trained to dispatch in the event of staff shortage. HEC is also working with HPD to allow cross training of personnel across the dispatch discipline.	
JW recommends a single cohesive organizational team instead of several separate and individually unique organizations.	Management will take into advisement.	
JW recommends HEC AND HPD consider a program where interested and qualified Telecommunicators train and spend a probationary period as Police Dispatchers.	HEC management is working with HPD on a career opportunity for all qualified HEC call center employees to shadow and have an opportunity to qualify as a Senior Police Telecommunicator (Dispatch).	In Progress  Discussion between HPD and HEC was initiated prior to audit.
HEC and HPD management should consider a program where additional Police Telecommunicators are trained as Police Dispatchers but remain with HEC in a reserve pool.	The skill level of a dispatcher is developed over a period of time. Experience has proven that these skills diminish with lack of use. A reserve pool of outside personnel would not be effective. Call taker employees who have been cross-trained for dispatch could maintain their skills by being assigned to a dispatch on a low traffic position on weekly schedule.  Management will take this recommendation under advisement.	
Recommendation of moving Teleserve to HEC	In most centers, civilians in the Police Department's Records Division staff Teleserve. Further review in conjunction with HEC management will need to be conducted to determine if sufficient space, equipment, etc. exists at HEC to house this function or if it should be combined with another Department division (e.g., Records Division) to achieve the economies of scale noted in the audit.	
Proposal for consideration of three 12-hour shifts and a single 6-hour	Currently, both HPD and HEC operate under an 8½ hour a day, five day a week work schedule (which includes a 30-minute unpaid lunch). No immediate plans	

## JEFFERSON WELLS' – RECOMMENDATIONS

Recommendation	Management's Response/Comments	Action Status
shift.	are being considered to deviate from this schedule. It should be noted that dispatchers through a vote, overwhelmingly rejected the 12-hour shift proposal in 2004.	
<b>Employee Evaluation, Rewards and Retribution</b>		
JW recommends removing attendance factor from the annual evaluation.	<p>The management team disagrees with Jefferson Wells' recommendation.</p> <p>Attendance is a very important factor in the performance of any job and the evaluation of that performance. Employees cannot be productive if they're absent. Currently 62.5% of the overtime paid is directly related to absenteeism.</p> <p>The management team is examining ways to address dubious intermittent FMLA claims, which exacerbate the current staffing problem at HEC.</p> <p>Additionally, HEC has recommended to the Human Resources and the Legal Department the need for a review of the city's interpretation of the FMLA guidelines and the application of such guidelines.</p>	
JW recommends that productivity measures be split into two categories.	HEC management will take Jefferson Wells' recommendation under advisement.	
Recommendation that supervisors who rotate from the Center are required to provide EPE ratings for all employees.	<p>HEC supervisors do not rotate out of the Department. Supervisors do change shifts and are required to have completed all documentation on employees prior to their shift change.</p> <p>HPD Classified supervisory personnel do rotate out of the center. HPD management will be encouraged to complete documentation prior to transfer.</p>	
Recommendation that the duties of the Employee Relations Manager do not include the performance of disciplinary actions.	<p>The Employee Relations Manager's responsibilities are to serve both employees and management. The delicate balance of this role is determined by the vast knowledge of City of Houston Policy and Procedures and the manner in which these policies are mandated across the board for HEC and all city departments.</p> <p>The Employee Relations Manager does not perform disciplinary action on any employee. Disciplinary action is initiated by the employee's immediate supervisor and routed to the appropriate Administration Manager, then Assistant Director to the HEC Director.</p>	

## JEFFERSON WELLS' – RECOMMENDATIONS

Recommendation	Management's Response/Comments	Action Status
	The ERM assists management and employees on policies and procedures that apply and ensures that they are followed during this process. In the event of a grievance filing, the ERM reviews information and ensures that all documents are properly prepared for processing.	
JW recommends that management institute a rewards program	<p>Several employee recognition programs are already in place. These programs are:</p> <ul style="list-style-type: none"> <li>Extra Milers and SAAVY news letters</li> <li>"Telecommunicator of the Year" and "Silent Hero" Awards That are presented at the annual Texas Emergency Number Association Conference (TENA).</li> <li>Shift bidding based on productivity is a recognition</li> <li>HPD Dispatch started an employee recognition program approximately one month ago.</li> </ul>	Management is considering other avenues of recognition.
The City should evaluate, and improve as necessary, the current starting pay and compensation.	Management team will take this issue under advisement.	
JW recommends that, in accordance with both City and HEC policy, employees be allowed to take their deferred holiday time within 120 calendar days or be paid for these hours worked.	<p>It is always preferred that employees be allowed to take their deferred holiday time as prescribed in these policies. HEC Management, with concurrence from the HEC Advisory Board, made a decision to carry an employee's deferred holiday time rather than lose it. Because of the current staffing shortage, often times, the deferred holiday cannot be granted at the time of the employee's request, but can be used in lieu of scheduled vacation. To this date no HEC employee has lost a deferred holiday.</p> <p>According to the city's Code of Ordinances and COH policy, we cannot pay employees for these hours over 120 days.</p>	
JW recommends that the City reviews its current FMLA policies and practices.	Management team will take this issue under advisement.	

## JEFFERSON WELLS' – RECOMMENDATIONS

Recommendation	Management's Response/Comments	Action Status
JW recommends HEC management increasing "face time" with employees.	HEC management has spent time in the call center on various occasions, during the different shifts.	Will continue to do so as schedules permit.
JW recommends a recognition board	Under review with BSD for appropriate location.	Reviewing with BSD an appropriate location for an employee recognition board.
JW recommends one set of common standardized policies be established for all civilian and classified personnel at the Center and be applied and enforced consistently.	All employees working at HEC operate under much the same set of rules. Some disparities noted are not necessarily the result of "different rules for different work groups," but are the result of civil service laws or customs and practices that treat classified and civilian employees differently. The HEC policy manual presents the general policies that apply to all staff assigned to the HEC, as well as specific, task-oriented operational guidelines that apply to each component division."	
JW recommends that management ensures the appearance as well as the reality of equal and equitable treatment of all personnel	<p>HEC management adheres to the City of Houston policies as it relates funeral leave, vacation, sick leave and disciplinary actions.</p> <p>However, some disparities noted are not necessarily the result of "different rules for different work groups," but are the result of civil service laws or customs and practices that treat classified and civilian employees differently.</p>	
JW recommends that all civilian employees at the center be held to the same measurement standards and conditions. This includes an evaluation and reward system based more on performance than solely on seniority.	Management team concurs	
JW suggests that HPD determine whether its civilian HPD employees are to be held to the same standards and afforded the same benefits as HEC, other City, or other HPD civilian employees, since their current treatment is	<p>All city of Houston employees are expected to adhere to the Mayor's Policy (606.00 – Lunch and Rest Breaks)</p> <p>Each full time employee shall be allowed a lunch break from 30 – 60 minutes and two paid rest breaks of 15 minutes. Employees will not be compensated during their lunch breaks. In either case, the employee shall be expected to work a full eight-hour day.</p>	

## JEFFERSON WELLS' – RECOMMENDATIONS

Recommendation	Management's Response/Comments	Action Status
<p>inconsistent with any one such group.</p>		
<p>JW Recommends that HEC management consider requiring management and especially back office HEC personnel adopt a similar dress code.</p>	<p>Administrative personnel are required to dress business professional every day, which is the standard for the COH dress code for all departments. HEC management does not concur with the suggestion that HEC administrative staff also wear uniforms. HEC does not have sufficient funding to provide uniforms for all employees.</p>	
<p>JW recommends HEC limit the placement of televisions in the center.</p>	<p>TV comments – In an emergency communication environment, it is critical that newsworthy events that occur are learned about in the quickest format possible. The "TVs" that were observed are required to keep updated on breaking news and not just City Council activities.</p> <p>The specific channels that are allowed in the call center are the three major networks (ABC, NBC, &amp; CBS) plus the major national news channels (CNN, FOX), the weather channel and the municipal channel. The tuners, which provide these feeds, have no sound or close captioning, which keeps any distraction that a call taker or dispatcher may have to a minimum.</p> <p>The ability to see breaking news may be the result of a call that one of the call takers may have handled and this helps to provide closure for them if the call handling process was stressful or difficult.</p> <p>Those areas cited as having TV's on during their work day, are in areas where the employees are required to be in earshot of any breaking news that may affect response required (hurricanes, disasters) or breaking news as a result of a police, fire, or emergency ambulance incident.</p>	
<p>JW recommends that the city clearly communicate to employees who are required to attend roll call prior to their shift (30 minutes or less) is specifically paid time and that their 8.5 hours work day</p>	<p>The official shift starts with roll call. This information is provided to all employees in HEC PSAP Policy100.11. This information was distributed to all employees in October 2003 and to all new employees during orientation.</p>	

## JEFFERSON WELLS' – RECOMMENDATIONS

Recommendation	Management's Response/Comments	Action Status
includes a 30 minute unpaid lunch break.		
JW recommends that the ERM discontinue the practice of advancing his personal funds to assist employees in times of need.	Management team concurs	Practice discontinued.
<p>JW recommend if the city continues with 3 separate organizations, consider a separation and segregation of the two major functions, management of the 9-1-1 call processing and the provisioning of a common shared infrastructure and related support services.</p> <p>JW also recommends that building services assume responsibility of all physical building and related logistics.</p> <p>Focus group interviews stated that HEC management demonstrated excessive control or gave preferential treatment to HEC employees</p>	<p>If the City of Houston chooses to stay with Scenario 1, management concurs that all call taking functions continue to be performed under the direction of HEC.</p> <p>Management does not agree that Building Services assume additional responsibilities of conference room scheduling, space planning, etc since this function is not their responsibility in any other city of Houston facility.</p> <p>A committee established by the HEC Advisory Board determined HEC Policies. The responsibilities of the HEC Director were also defined and established by the HEC Advisory Board accordingly and is in the Director's job description:</p> <ul style="list-style-type: none"> <li>○ Oversee, manages, and directs the operations and functions of the Houston Emergency Center</li> <li>○ Manages a workforce of 309 + employees who coordinate, operate and maintain the City's Emergency Communications systems and equipment. Including the technical and support staff responsible for automated systems, maintenance and support.</li> <li>○ Directs the activities of two Assistant Directors over 9-1-1 Emergency communications and telecommunications functions</li> <li>○ Monitors departmental operations to ensure effective coordination, information flow and policy development</li> <li>○ Coordinates with HEC Management Board</li> </ul>	

## JEFFERSON WELLS' – RECOMMENDATIONS

Recommendation	Management's Response/Comments	Action Status
	<p>Employees should perform their duties with the highest regard to uphold respect and service to the city and its citizens in spite of the perceived friction.</p>	
<p>JW recommends direct communications between dispatchers and call takers</p>	<p>Call-takers are required to answer all incoming calls; therefore, it is not uncommon for a call-taker to be involved with another call when a dispatcher determines that they need additional information for the previous call.</p> <p>If the call taker were interrupted, this would delay the current call that is being processed. Furthermore, a supervisor has the ability to look up the event and listen to the call and answer the supervisor or dispatcher's questions.</p>	
<p>JW recommends that all HPD supervisory personnel be trained in CAD</p>		<p>All police supervisors at HEC are being trained to work dispatch positions in order to act as dispatchers in the event a shortage occurs.</p>
<p>JW recommends that Telecommunicators spend some time in the field with respective HPD and HFD emergency responders.</p>	<p>This recommendation is already a part of the Basic HEC Telecommunicator Training Program. However, we will include this as part of the Continuing Education Training Program.</p>	<p>HPD will require that during initial training, dispatchers will be required to spend time in the field to gain a better appreciation of what actually occurs in the field.</p>
<p>JW recommends a revised sick policy that does not penalize employees for taking up to their statutory 64 hours of sick time and an incentive program for minimal sick time and unscheduled absences.</p>	<p>Per the Mayor's Policy 602.00 &amp; 604.00, employees are expected to work as scheduled.</p> <p>HEC Policy is in compliance with the City Code of Ordinance, Chapter 14; Section 14-227, which states verification may be required prior to the use of 64 hours of sick leave in any instance of potential abuse of sick leave. Sick leave is a benefit.</p> <p>There is no statutory policy that states that an employee cannot be disciplined for using 64 hours of sick time. This is a perceived notion.</p> <p>The City has an incentive program in place as dictated in Chapter 14 of the City Code of Ordinances (Section 14-232). Employees under the Compensatory Sick</p>	

## JEFFERSON WELLS' – RECOMMENDATIONS

Recommendation	Management's Response/Comments	Action Status
	<p>Leave Plan (CSL) receive additional days off if they do not use any sick leave during a benefit year. It is dictated as follows: 0 hours used = 3 personal leave days (24 hours); 1 min - 8 hours = 2 personal leave days (16 hours); 8 hours and 1 min. to 16 hours = 1 personal leave day (8 hours).</p>	
<p>JW recommends that the City both empower and require the respective groups' management to fully staff the multiple call processing functions.</p>	<p>In any organization there will be retirements and resignations. HEC will continue to fill all vacated positions as they occur.</p>	<p>Currently HEC 9-1-1 Operations is fully staffed in the 9-1-1/Police call-taker category with the addition of 11 new employees that started on 5/31/05. Training will cover a 3-month period. The new hires will not begin to work independently until approximately 9/1/05. HEC 9-1-1 Operations will work toward the same full compliment in the Fire/EMS call-taker area.</p> <p>To address the noted police dispatcher shortage, HPD has begun an aggressive hiring campaign.</p>
<p>JW's statement that fully staffing all positions will reduce overall expenses by replacing overtime with employees paid at regular pay rates and increase morale by reducing related mandatory overtime and drafting. In addition, the City may experience further tangible, but less precisely quantifiable, benefits from reduced absenteeism and paid sick time incidences, including potential fewer intermittent FMLA.</p>	<p>All 911/Police Telecommunicator positions are filled. However, the filling of all vacancies may not address the absenteeism that existed prior to consolidation and continues to exist. Currently 62.5% of the overtime that is being paid is directly related to absenteeism. HEC management is working with employees and supervisory personnel to curtail these occurrences on an ongoing basis. The management team agrees that filling all vacancies and reducing the current excessive absenteeism, more aggressive handling of intermittent FMLA could potentially improve morale.</p> <p>A recommendation has been made by HPD that all current vacancies be filled via an aggressive hiring program and that HEC Telecommunicators be cross-trained to perform the dispatch function.</p>	
<p>JW recommends realistic and achievable long-term DCP and</p>	<p>Management will take this issue under advisement. It has been proven that with ongoing training, an expanded quality assurance program, and diligent</p>	

## JEFFERSON WELLS' – RECOMMENDATIONS

Recommendation	Management's Response/Comments	Action Status
PCP goals are established.	supervision, the current call standards can be met and improved upon.	
JW recommends the Police Telecommunicators follow a more scripted rather than free flow data gather process.	Although this has been part of their training. HEC is attempting to obtain grant funding for Police protocol that would eliminate the free-flow data gathering.	HEC and HPD management has agreed to move toward a similar call processing protocol.  HEC management worked with HFD management in the scripting, training and quality assurance process prior to the move into HEC.
JW recommends that management closely monitor the actual time physically spent on the phone and either on a call or available to answer a call by a Telecommunicator.	Management concurs with this observation. The monitoring of the call floor is the responsibility of the 1 <sup>st</sup> line supervisor.	HEC has provided the 1 <sup>st</sup> line supervisor with the appropriate equipment to monitor this activity and it is now included in the EPE work plan.
JW recommends that HEC management consider assigning a number of Senior Telecommunicators within the system on each shift to handle both Fire/EMS and during lulls in Fire/EMS calls, any Police call overflows.	Management disagrees with this recommendation. Senior Telecommunicators (Fire/EMS) should not be committed to processing non-emergency Police related calls because this will cause a potential delay in Fire/EMS related emergency calls.	
JW recommends that in order to achieve an improved work/life balance, the HEC should alter the current 4-week scheduling process to a much longer timeframe.	HEC management has acquired new scheduling software program that will assist in this matter. This will automate the scheduling process and allow us the ability to schedule larger increments at a time.  However, it will not improve the distribution of holidays nor reduce the number of scheduled overtime or unscheduled overtime.  A more equitable distribution of holidays can be accomplished through adjustment of off-days during holiday periods. This option was offered in 2003 to the call-takers and dispatchers and was overwhelmingly rejected.	Software acquired.

## JEFFERSON WELLS' – RECOMMENDATIONS

Recommendation	Management's Response/Comments	Action Status
<p>JW recommends that management clearly define and communicate its policy concerning drafted employee's ability and responsibility to make alternative arrangements for such outside personal commitments as childcare.</p>	<p>We are in the process of updating the HEC overtime policy. However, there is no policy that indicates that employees can go home to secure alternative childcare arrangements.</p>	
<p>JW recommends that HEC management establish an automated IVR to handle the 10-digit Police Calls.</p>	<p>The Management team is in the process of exploring the use of IVR technology to handle 10-digit non emergency police calls.</p>	
<p>JW recommends establishing an automated IVR to handle the 10-digit Fire/EMS related calls.</p>	<p>The Management team disagrees with this recommendation of the use of IVR to handle HFD and HPD 10-digit calls. Unlike HPD, all HFD (911 &amp; 10-digit) calls are to be considered emergencies.</p>	
<p>JW recommends that management increase immediately the number of bi-lingual Spanish speaking Telecommunicators and Senior Telecommunicators who interact directly with the public.</p> <p>JW suggests that management both reclassify and deploy as bi-lingual any eligible current Spanish speaking Telecommunicators (including provision of requisite premium) as well as actively recruiting bi-lingual Spanish speakers for all positions.</p>	<p>Houston is a culturally diverse city with Spanish as the predominant non-English language spoken. When call-taker positions are posted, bi-lingual candidates are given preference for these positions.</p> <p>Some current employees, who speak Spanish or other languages, have chosen not to use their skill as a part of their job description. For this reason, HEC management has provided access to a Language Line service to assist with these and other non-English language calls.</p>	
<p>JW recommends that dispatchers assign Priority Code 3 and 4</p>	<p>The recommendation to prevent officers from assigning themselves directly to Code 3 and Code 4 calls will be taken under advisement by HPD.</p>	<p>Currently, field supervisors do monitor time spent on calls by officers under</p>

## JEFFERSON WELLS' – RECOMMENDATIONS

Recommendation	Management's Response/Comments	Action Status
<p>directly to specific patrol units and monitor unit availability to ensure that these calls are answered in the sequence received and on a timely basis.</p>	<p>The recommendation that the Department prepare a schedule of expected time to handle a police call by type will be taken under advisement by HPD.</p>	<p>their command to help ensure maximum officer availability.</p>
<p>JW recommends the establishment of a 24 x 7 Help Desk on site at the center.</p>	<p>The Management team has taken this issue under advisement.</p>	
<p>JW recommends management establish a career path for IT personnel and reduce the constant threat of disruptions to their home life.</p>	<p>Because of the small IT staff within HEC, additional promotional opportunities exist through the City of Houston IT department and across other COH departments.</p>	<p>Within the past 12 months 25% of the IT staff has been promoted.</p>
<p>JW recommends that management should evaluate the cost benefits of maintaining a City or vendor owned inventory of essential spares on site to reduce parts related downtime.</p>	<p>Support/Maintenance contract has been changed to require vendors to allow these items to be stocked locally. Additionally they will place a priority on high use items, and provide a proactive monitoring and alerting capability.</p> <p>HP will put in a monitoring service to ensure earlier alerting of problems and ensure quicker response to problems.</p>	
<p>JW recommends that management should ensure that the IT Department has the requisite equipment and technical training to support the Center systems.</p>	<p>It is not cost effective to send employees out of town for training to do what a vendor has an obligation to provide or is part of the original purchase contract.</p>	<p>Due to rigorous training requirements, HEC will schedule application training as budgets allows.</p> <p>Management will continue to review vendor relationships to determine support responsibilities.</p>
<p>JW recommends that the City should maintain a pro-active media communications program to ensure that local media receives an accurate and balanced account</p>	<p>HEC continues to provide accurate information to all levels of media. Regarding media interests of HEC activities, HEC proactively provide media alerts of scheduled system maintenance and/or upgrades, media releases to summarize particular HEC incidents, and media notification of upcoming HEC news conferences. In the case HEC information is not available; the media/public is</p>	

## JEFFERSON WELLS' – RECOMMENDATIONS

Recommendation	Management's Response/Comments	Action Status
of any and all downtime.	encouraged to submit an Open Records Requests for processing. HEC does not have control of the media/public's portrayal of received information.	
JW recommends a clear policy for overtime compensation and preventive maintenance.	Overtime compensation policy is under review. The previous policy was subject to questionable employee hourly submission. The CTO will seek advice from HR and present findings to the Director and then to the team in 1 <sup>st</sup> quarter of FY06.	
JW recommends a formal preventative maintenance schedule.	Preventative maintenance is a key part of a reliable and highly available system. The HEC system is composed of three public safety applications and one important business application. Preventative measures are underway to significantly improve the uptime and component failure issues in the system. Specifically fail-over and redundancy testing is underway on all four systems and the gaps are currently being addressed. Hardware and operating system monitors are being tested and gradually introduced to the monitoring process. In Q1 of FY06 an application monitoring process for CAD will be implemented. This initiative will then be evaluated. Gaps will be noted and addressed. A comprehensive hardware inventory is being conducted and necessary quick access replacement parts will be staged to rapidly change out faulty hardware components. This will limit replacement time.	
<p>JW recommends the coordination of IT support activities with other parties at the center.</p> <p>JW also recommends that the City could potentially reduce IT costs by coordinating City and GHC equipment maintenance.</p>	<p>All equipment does not belong to COH and is not maintained by COH. Equipment provided and managed by GHC, is clearly identified and is sufficiently supported by GHC personnel who provide 24-hour support for the equipment on site</p> <p>There is no overlapping responsibility to require HEC IT access to these equipment rooms or equipment. GHC does not have access to COH equipment. There is a cooperative effort between GHC and HEC IT technical support staff when coordinating service, maintenance and trouble solving responsibilities. Each organization is a separate governmental entity with separate funding and is responsible for its own equipment.</p>	
JW recommends that the City consider establishing a single centralized IT office.	This recommendation will be taken under advisement	

## JEFFERSON WELLS' – RECOMMENDATIONS

Recommendation	Management's Response/Comments	Action Status
<p>JW recommends that management should evaluate the location and quality of mission critical infrastructure equipment.</p>		<p>Currently being addressed by the grounding study team.</p>
<p>JW recommends that the Center prepare a formal business disruption and continuity plan in the event that the Center becomes disabled for any considerable time.</p>	<p>HEC management team will work jointly with HPD and HFD to establish a back-up dispatch facility proposal.</p>	
<p>JW recommends that the Center enforce a "no tailgating" policy for both vehicles entering the facility grounds and for individuals entering the secured areas of the building.</p>	<p>HEC Policy HEC100-03 - Perimeter Security is very clear in procedures regarding the facility's security mandate. Specifically:</p> <p>¶ IV – Upon approaching the main entry gate, all persons and vehicles will stop at the entry control point 1 (ECP1) until the security officer authorizes their entry. Persons and vehicles are granted authorization to enter the premises only by the security officer at the entry control point. This allows the security officer to perform other appropriate security tasks (e.g., closer scrutiny of occupants' IDs or vehicle examination). In other words, persons and vehicles should not enter just because their ID has opened the gate or their vehicle is displaying a hangtag.</p>	<p>Stricter enforcement of this policy will be undertaken by security personnel. Persons or vehicles will not piggyback through the gate.</p> <p>All persons, including employees, desiring to enter the premises are subject to the following: (1) challenge; (2) leaving official identification with security officer or receptionist; (3) search of person; (4) search of vehicle; and (5) search of belongings or cargo.</p> <p>Persons who do not wish to comply will not have their persons or property searched. Instead a security officer will immediately escort them from the premises.</p>